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OF

INSANITY ~~AND~~ NERVOUS DISEASE.

A QUARTERLY COMPENDIUM OF THE CURRENT LITERATURE
OF NEUROLOGY AND PSYCHIATRY.

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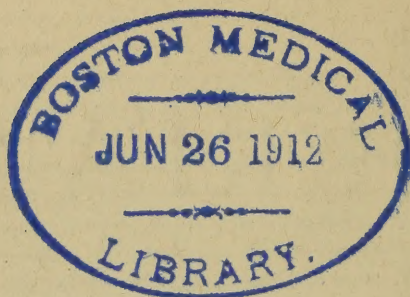
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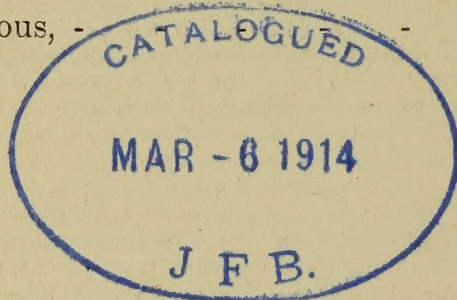
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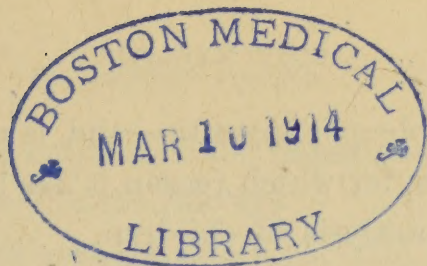
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ACUTE MYELITIS.

By SANGER BROWN, M. D., Chicago.

Professor of Forensic Medicine and Hygiene, Rush Medical College; Professor of Diseases of the Mind and Nervous System, Post-Graduate Medical School; Late Acting Medical Superintendent of the Bloomingdale Asylum of New York; Member of the London Neurological Society, Etc., Etc.

A pretty large proportion of medical students who graduated in this country from ten to fifteen years ago, did so without having been taught anything very definite on the subject of myelitis. It is true that most of the works on Practice of Medicine contained a few paragraphs or pages on paraplegia, but myelitis had not attained the dignity of a clearly recognized and important disease. This accounts for the fact that to-day here in Chicago so many cases are not correctly diagnosed till they happen to fall under the eye of a neurologist.

In a large proportion of cases the disease is pretty easily recognized, if only the symptoms are studied in the light of modern anatomical and physiological views pertaining to the nervous system.

Compared with organic disease of other organs and tissues, organic disease of the central nervous system is very rare, but among these latter, myelitis is comparatively frequent, and the comparative frequency would be very much increased if that inflammation of the cord were included, which for some reason confines itself to the grey

matter of the cord—polionyetitis—and is mainly observed in young children, for which reason it has been termed the essential spinal paralysis of children.

Reference is only had in this paper to the variety of myelitis which occurs mainly in adults and involves all tissues of the cord without regard to their functions or structure—a non-systemic or non-discriminating myelitis commonly described also as a transverse myelitis, because a longer or shorter segment of the cord is usually completely invaded. Cases produced by trauma or the extension of disease from contiguous structures are excluded, because in them diagnosis is not so difficult.

Any cause which reduces the vitality of the tissues favors the development of this disease; thus syphilis, which is one of the most clearly recognized and most potent devitalizers, is found to have preceded myelitis in a large proportion of cases. It was admitted in two-thirds of the cases of which I have taken notes, but in none of them were there any of the usual active manifestations of syphilis present, nor had there been, according to the statements of the patients, within two years from the onset. Exposure to wet and cold is commonly reckoned among the causes, but I think investigation will generally reveal the fact that the vitality had previously been markedly reduced by some other disease or by fatigue, or both. The vitality of the cord is so much reduced in Locomotor Ataxy that one might expect myelitis to occur quite frequently in that disease, but, while a number of instances of such occurrence are on record, they are by no means frequent.

The influence of heredity may be neglected, but age and sex have a decided bearing. A large majority of the cases occur in males between the ages of 20 and 40, which would

tend strongly to emphasize the importance of activity and exposure as factors in the etiology.

The symptoms are extremely variable. Those relating to the onset are of much importance, because it is only at this stage that treatment can be of much benefit in arresting the further development of the pathological process.

In many cases slight premonitory symptoms precede the more marked symptoms for several days. If questioned closely the patient will remember these. They may consist of motor or sensory disturbance, or both. Motor disturbance alone is more frequent than sensory disturbance alone, and about as frequent as both together. As the disease is in the vast majority of cases confined to the dorsal region the symptoms refer mainly to the lower extremities, the bladder and rectum.

These early motor symptoms may consist of a steadily increasing weakness of the legs, sometimes more noticeable in one than the other, so that the patient finds himself unaccountably clumsy and the legs feel heavy, or he may have periods of considerable weakness, lasting only for a few minutes or a few hours, from which he almost or quite completely recovers. What has been said of the muscles of the legs applies equally well to the detrusor muscle of the bladder. From the nature of the case variations in the power of the muscles concerned in the propulsion of the contents of the bowels cannot be clearly demonstrated, but constipation where the bowels had previously been regular is often observed.

Pain cannot fairly be reckoned among the premonitory symptoms, and neither can alterations in the senses of touch or pain. Most common among these early sensory

disturbances are prickling, pins and needles, formication and numbness, as if the shoe were laced too tightly. These may remit more or less completely before they become established or steadily progressive.

These premonitory symptoms are rarely, if ever, accompanied by any general symptoms, though for some unexplained reason several of my patients have volunteered that for a day or two prior to the active outbreak there had been unnatural somnolence and the sleep at night had seemed to be unnaturally heavy. I have not seen this noted elsewhere and should think it must be a mere coincidence.

Though the symptoms above described may be arrested without advancing much farther, and after a few weeks begin to disappear, it more often happens that at a certain point they commence rapidly to progress so that in a few hours both motion and sensation are seriously impaired, if not entirely lost. In a considerable number of cases premonitory symptoms are entirely absent. This activity of the diseased process may be, and often is, attended with some general disturbance, rarely severe, but when there is only comparatively slight disturbance, vomiting—not severe or protracted necessarily—is more likely to occur than in diseases where the main pathological process is not situated in the central nervous system. This occurs when the lesion is confined to the dorsal region of the cord remote from the centres concerned in the mechanism of vomiting. There is, after all, nothing distinctive enough in the general disturbance to throw much light upon the question of diagnosis. During the premonitory period the cutaneous reflexes and the knee jerks are usually, or at least often, exalted—and sometimes there is ankle clonus, but during

the period of activity, especially if this be severe, even though the reflex arc be not included in the pathological process, all reflexes may be absent, but if that part of the reflex arc situated in the cord, that is, the lumbar enlargement, escapes, they will soon return and become greatly exaggerated. I have never known the cremasteric reflex to return in a case where dorsal myelitis had followed syphilis. There will usually develop a hyperæsthetic zone at the upper limit of the lesion, and in mild cases the patient may describe it simply as a girdle sensation. It is not invariably present.

The permanent symptoms need not occupy much space. In cases of much severity the legs are usually spastic to some extent and unless splints are used contractions occur. There may be priapism at first which may persist for weeks, but impotence from the first is far more common. There will be no atrophy unless the lumbar enlargement is involved, nor with ordinary care are bad sores likely to form.

The two cases detailed below illustrate the mild and severe types of the disease.

CASE I.—A. D. was referred to me Sept. 15. Patient admits syphilis three years ago; states that for the past three weeks he has suffered from obstinate constipation, having been very regular previously, and one week ago had difficulty in micturition; the stream became small and weak and he could not force it as usual; three days ago this had progressed to complete retention which has continued down to the present. Two days ago noticed for the first time weakness of the right leg which has steadily increased; can walk well on a smooth floor but the knee even then occasionally gives way and the leg feels heavy and awkward. The only alteration in sensation

has consisted in an unnatural feeling of warmth from the cold sheets when getting into bed. There has been no pain whatever and no disturbance of the general health.

Examination revealed greatly exaggerated knee-jerks and ankle clonus alike on both sides, and loss of the plantar, cremasteric and abdominal reflexes. There was slight weakness of the left leg. No disturbance of sensation could be made out excepting that a test tube filled with ice water and applied to the leg did not feel cold. Heat appeared to be normally appreciated.

There was no further advance of the symptoms, patient having been immediately put to bed and kept lying in the prone or lateral position with alternately hot and cold applications to spine, small doses of calomel and light diet. The spinal applications were discontinued on the fifth day, though rest and a light diet were still enjoined. Patient was impressed thoroughly with the importance of using the catheter properly, and, as often happens in these cases, a small soap or glycerine suppository would usually produce a satisfactory movement of the bowels.

In five weeks from the arrest strength began to return in the legs and in three months he resumed work on his train, but the right leg was still somewhat awkward. He dispensed with the catheter but it took him longer to urinate than formerly and there was some constipation. A few months later he married, soon after which he became worse than ever, and while the symptoms were arrested by a repetition of the former treatment, several months later not much improvement had taken place.

CASE II.—A. C., a gentleman of 30, had syphilis at 28, and while taking his accustomed horseback ride after business hours July 18th, was seized with violent pains in the

back, which soon subsided when he had checked his horse's speed, so that he rode slowly home with comfort and slept well. He had noticed for five days prior to this, however, that his knees were weak as he came down stairs in the morning, but this disappeared after he had walked a little. The morning following the horseback ride above referred to, weakness was more marked than before and persisted, and at 10 A. M. intense pains set in in the lumbar region which could not be relieved by posture. At about 1 P. M. there was noticed marked impairment of sensation extending from below upward to the crest of the ilium on each side. By 5 P. M. all power of motion in the legs was lost and nearly all sense of feeling had vanished in them. There was retention of urine and fæces, and passage of the catheter caused no sensation. There was a marked hyperæsthetic girdle at the upper limit of the lesion.

Febrile movement varying from 100 to 102 degrees supervened, and that with the lumbar pain lasted about ten days, when both subsided together and the general health became good. In two or three weeks from the onset intense spastic symptoms supervened, with priapism, and pins and needles sensations appeared in the feet, but this last only lasted a few days.

Six months later not the least power of voluntary movement had returned in the lower extremities, and there was still no improvement in the condition of the bladder and rectum. The sense of touch was absent below the level of the lesion, but the pain and temperature senses were present, though impaired, notably from above downward, completely disappearing at a point about midway between the ankle and knee.

As the spastic symptoms in the legs were very trouble-

some, splints were applied which could be locked at the knee in any desired position, and the patient was encouraged to ride out daily, while passive movement and massage were regularly and thoroughly applied. Some degree of voluntary movement soon appeared which slowly extended and increased, so that a few months later by the aid of crutches and a wheel chair patient successfully resumed his business duties. The catheter has still to be used and the bowels require artificial aid, and in a case so severe as this one it is not to be expected that they will resume their normal function.

This case did well without electricity, excepting that a nurse at one time applied faradization to the legs with the result of aggravating the spasm. This so prejudiced the patient against its use that he was not anxious to have anything more to do with the remedy and it was accordingly dispensed with.

The patient's condition at present is essentially that of an advanced case of spastic paraplegia, for which it might readily be taken if the history were not taken into account.

The symptoms are due to injury or destruction of the cord, and in transverse dorsal myelitis this is mainly limited to its conducting elements. This cuts off communication with the brain, which accounts for the disturbance of motion and sensation. The extension of the inflammation to the surface of the cord with the consequent irritation of the meninges and posterior nerve roots, accounts for the girdle sensation at the upper limit of the lesion. When the lumbar enlargement is involved the cells of the lower segment suffer; these preside over the nutrition of the muscles, which then atrophy; the reflex arc is likewise interrupted and the reflexes are absent. It is true that

some cells are destroyed when the inflammation is confined to the dorsal region, but the functions of the muscles with which they are connected are so indefinite that no symptoms of importance result from their destruction.

Hysterical paraplegia is quite frequently mistaken for paraplegia due to myelitis, but a few days' observation will usually suffice to distinguish between the two. Hysteria is much more frequent in females and myelitis in males. The upper boundary of disturbed sensation extends straight round the trunk in myelitis, its plane lying at right angles to the axis of the trunk, while in hysteria the boundary diverges from the pubes, leaving the abdomen normally sensitive and the back more or less insensitive as far up as the lower angles of the scapulas. In hysteria, the reflexes may be exaggerated, they are never absent, the knee jerk is sometimes accompanied by a general jerky contraction of many of the flexors, and there may be a spurious foot clonus. It is true, there may be retention of urine, and constipation and paralysis without atrophy in both cases; of course, there is never a true atrophy in hysteria, but there may be considerable disuse atrophy. Retention in hysteria is not usually very persistent, whereas the reverse is true of myelitis.

Hemiparaplegia would almost never be due to an acute myelitis.

The immediate danger to life is not great unless the disease reaches the medulla oblongata, which it rarely does, and, indeed, the remote danger is not great if proper care is bestowed upon the bladder and bowels, where the paralysis of these organs is permanent. Unless there is considerable atrophy, restorative measures should not be

abandoned until a year or more had transpired without improvement.

The treatment may be divided into two parts: First, the measures employed to arrest or modify the process during the period of development; and, second, measures directed to restoration of deranged functions.

Of main importance in securing the first object is complete rest, and a prone or lateral decubitus in order to assist as much as possible the circulation in the cord; this object should be further promoted by alternate hot and cold applications and dry cups along the affected regions of the spine. Small doses of calomel may be given frequently for a few days and a light but nutritious diet should be adhered to. No stimulants should be allowed. A few moments of rest on the back will often afford great relief without probably doing material harm. When feasible I have placed a mound of pillows and bedding under the abdomen so as to make the dorsal region the highest part of the body. I believe in a few cases by the early adoption of these measures, rigidly enforced, I have arrested the inflammatory process. And while in the cases of rapid onset no immediate benefit appears to result from any kind of treatment, yet it is not unreasonable to assume that by a thorough use of the measures described, the intensity of the process may be so far modified as to render the degree of subsequent improvement much greater than might have been possible otherwise. The treatment would likewise tend to limit extension of the inflammation. Enemata for the bowels and a catheter for the bladder have very commonly to be employed.

After a severe attack there will, at best, be a stationary period lasting several weeks, during which any measures

directly calculated to promote recovery cannot properly be employed. But during this period attention to the bladder and bowels is of the utmost importance, and as they are likely to require artificial aid in the performance of their functions for the remainder of the patient's life, and as neglect, especially of the bladder, is the most frequent cause of death in these cases, the patient should be given a thorough course of instruction in the art of keeping these organs in a healthy condition. At the same time, besides measures to keep the general health in a good condition, light massage and exercise of the joints should be regularly practiced in order to keep the parts healthy, in anticipation of the time when enough regeneration shall have occurred at the focus of injury in the cord to permit impulses to and from the brain to pass.

It is somewhat doubtful if measures can be directly applied to hasten regeneration of the cord, but it is a rational assumption that the process may be favorably affected by bringing the general health to the highest point. Whatever may be its usefulness, patients in this country at the present time pretty generally demand electricity in some form if they have paralysis. As well authenticated cases have been recorded where myelitis has been produced by the passage of a strong, interrupted galvanic current through the cord, it is safe to conclude that a direct effect may be produced by galvanism, and though it would be difficult to demonstrate just what amount of electricity would be necessary to produce the most beneficial amount of stimulation, it is highly probable that some degree of electrical stimulation would promote the process of regeneration. I commonly apply from 25 to 30 m. a. over the seat of the lesion, either daily or every alternate

day, placing the electrodes a few inches apart and moving them slowly up and down along the spine for about ten minutes.

If the spastic symptoms are not too severe and there is some sensory disturbance, faradism over the whole surface of the legs will usually give the patient a sensation as if he had been using his limbs, which is very gratifying to him. Perhaps cerebral centres are in this way thrown into activity which are intimately connected with those more immediately concerned in the outgoing impulse, whereby this latter is so far increased that more of it forces its way through defective conducting paths, with some temporary improvement in voluntary movement. Such temporary improvement certainly follows faradization of the legs in some cases, whatever the true explanation may be. And in a condition so tedious and so obstinate, when our resources of treatment are so limited, we should welcome remedies which produce even a very slight benefit, if only for the purpose of sustaining the courage of our patient till use and custom has finally rendered his affliction less intolerable.

No time must be lost in the application of splints when spastic symptoms come on in order to prevent permanent contractions. They should have a hinge at the knee so they can be locked in any position, in order that the patient may so adjust them as to be most suitable for riding, lying or walking, as the case may be. Marked improvement often sets in when by the aid of these devices the patient is encouraged to go out of doors regularly again, and give his attention to some suitable occupation.

The foregoing refers exclusively to a transverse myelitis confined to the dorsal region. The alterations which would be presented by an extension of the process can be readily inferred by recalling the anatomy and physiology of the parts of the cord involved.

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NEUROLOGICAL.

ANATOMY AND PHYSIOLOGY.

CEREBRAL CIRCULATION DURING PSYCHICAL ACTIVITY AND UNDER THE ACTION OF CERTAIN INTELLECTUAL POISONS. —De Sarlo and Bernardini, *Riv. Sperimentale*, 1891 and 1892. The authors, after reviewing the theories and literature of the subject, report experiments and observations made upon a patient of a certain degree of intelligence who had a fracture of the skull that permitted instrumental registration of the movements of the brain. The object of their investigations was to determine the relations existing between the cerebral pulse and the emotions. They found that in all emotional conditions there was an increase of the cerebral volume and of the height of the pulsations. The physical pain produced by the electric current always caused vasal spasm, while the pain induced by other means either did not specially modify the circulation, or the modification occurred at the same time with the other emotions. The form of the pulsation was not modified by slight emotional disturbances, while those of greater intensity produced anacrotism. Only especial forms of emotional disturbance produced a special type of pulse intermediate between anacrotism and catacrotism, which they term *ad altipiano*, and which they consider as a sort of transition form due to two opposing vasal reflexes. They also experimented by administering to the subject certain drugs producing decided effects upon the cerebral circulation in the way of ischæmia, hyperæmia, etc., in order to ascertain the effect upon the cerebral and peripheral pulse by the special emotions when under the influence of these drugs. They conclude that the manner of reaction of the cerebral circulation produced by emotions is not altered by the effects of these agents, and the changes in the cerebral circulation induced by the emotions are of the nature of reflexes, not subject to modification by pre-existing conditions. As regards the peripheral circulation, they find it modified variously by emotional conditions and that it is

not a reliable index of the quality of mental activity. The authors do not find in this discordance between the effects of the emotions and the actions of drugs affecting the circulation, any very good support for the theory that the disturbances of the latter are the active agents in producing the psychosis. They see, rather, an evidence that the action of these drugs is due to special chemical effects, the real nature of which is still very obscure or altogether unknown. They conclude by offering the suggestion, that as the psychic phenomena observed by them in their subjects were due to a chemical intoxication, and not to circulatory disturbances, thus many forms of mental disease have for their cause, instead of cerebral hyperæmia or anæmia, some intoxication, of the real nature of which we are still in ignorance.

H. M. BANNISTER.

ON THE PHYSIOLOGY OF THE LABYRINTH.—Dr. A. Kreidl reports experiments made upon deaf mutes with the object of testing the theory of Mach and Breuer in regard to the physiological functions of the labyrinth. According to this theory the function of the semicircular canals is the cognition of rotation. When the head is moved, the fluid in the canals, by reason of its inertia, flows, relatively, in a reverse direction and thus acts on the terminal nervous apparatus of the canals, enabling us to recognize our changed relation to the horizon. The otoliths, on the other hand, are intended to take cognizance of our relation to space. By their movements they act on the nerve terminations upon which they rest, and by the correspondence of their position with the three dimensions of space impress upon our consciousness each change of position. The experiments of James upon deaf mutes were defective, as James depended on the vertigo resulting from rotation. This symptom is purely subjective and varies with the subject. Kreidl's experiments were based upon the fact that rotation with closed eyes, in the normal subject, is attended by quick, nystagmus-like vibration of the globe which can be felt through the closed lids. Among 50 physicians tested this phenomenon was subnormal only once. Among 109 deaf mutes, each being tested several times, immobility of the eye during rotation was found 55 times. In 34 the movements were normal; 20 were rejected on account of abnormal eye movements. Autopsies on deaf mutes show that about 56 per cent have an affection of the semicircular

canals. The coincidence of these figures justify, in the author's opinion, the theory stated. As a test of the function of the otoliths, the author adopted the fact that if we pass over a curved path with proper speed, vertical objects appear leaning. This he explains as the resultant of the vertical, horizontal and centrifugal forces acting on the otoliths. The test was made with a crude sort of carroussel, in which the person examined was screened from surrounding objects and faced a dial bearing a vertical hand. On rotating this contrivance at a proper speed, the person examined was instructed to keep the indicator vertical during rotation. Experiments on 71 physicians showed that the indicator was deflected to an average of $8\frac{1}{2}$ degrees in 70 cases. Among 62 deafmutes, 13 did not deflect the indicator. In these persons the eye movements had also been absent in the first test. K. assumes a combination of disease of the canals and otoliths. Lesions of the otoliths are much rarer than lesions of the canals, and besides this we have accessory apparatus for the realization of our position in space. Other minor tests, in some of which vision was eliminated, corroborated the results obtained, that deafmutes have neither the normal power of recognition of their relation in space nor the same power of normal adjustment to changes in such relation. Kreidl therefore suggests the adoption of Breuer's suggestion that these organs be called the organs of "static sense."—(*Prog. Med. Wochensch.*, No. 14, 1892.)

G. J. KAUMHEIMER.

SOME CONTRIBUTIONS TO THE MUSCULAR SENSE.—Dr. Preston read a paper before the American Neurological Association with the above title. 1. The posture sense is composed of afferent impulses derived from muscles, tendons, articulations and their coverings, and bones. 2. It is independent of, and separable from, general tactile sensibility, and probably could be distinguished from the other members of this class, as the pressure sense, for example. 3. The course of these impulses through the cord is almost certainly by means of the posterior columns. 4. They probably pass into the corpus restiform and the cerebellum. 5. In all probability they pass through the anterior portion of the posterior third of the posterior limb of the internal capsule, occupying an intermediate position between the motor and sensory fibers in this region. 6. Without positive data on either side it would seem most

probable that the centre, for the posture sense is located in one of the cell-layers, of the motor cortex.—(*Med. Record*, July 30, 1892.)

B. M. CAPLES.

THE STRIÆ MEDULLARES OF THE MEDULLA OBLONGATA.—It is believed by many anatomists that the striæ medullares, or striæ acusticæ of the medulla, are connected with the roots of the auditory nerve. Bechtezeff disputed this view some time ago on the ground that, at all events in man, the development of the striæ medullares is much later than that of the auditory nerve. He has recently published another paper in which he gives an account of the course of striæ medullares so far as he has been able to trace them anatomically. They arise in the white substance of the cerebellum close to the flocculus and serve as commisural fibers for the basal portion of the cerebellum, emerging from the cortex of the convolution of the flocculus. The fibers first follow the inner basal surface of the flocculus, ascending on the margin of the cerebellum which surrounds the restiform body, and then reach the lateral margin of the fourth ventricle.—(*Lancet*, July 23, 1892.)

B. M. CAPLES.

NEUROLOGICAL.

PATHOLOGY AND SYMPTOMATOLOGY.

A CONTRIBUTION TO THE PATHOLOGY OF ARRESTED CEREBRAL DEVELOPMENT.—Dr. Sachs read a paper before the American Neurological Association with the above title. He said the gross lesions of childhood received much attention of late years, and the condition that led to the development of paralysis, epilepsy and idiocy, or possibly all three conditions combined, was tolerably well understood. One small group of these, which included the severest form of idiocy, attracted the author's special attention. It ran in families, a number of children of the same family being affected in the same way. The children appeared to do well until about the fifth to eighth month, when a retrograde movement would set in. All cerebral functions, motor and sensory, became impaired. Child soon became idiotic, blind, more or less paretic, and death took place from marasmus. He here exhibited a case in which there was no

spontaneous movement of any sort, child sitting listlessly on the nurse's lap. Knee-jerk distinctly exaggerated. No ankle clonus. Plantar reflexes increased. Child died at the age of twenty months. A week before death there appeared considerable fever and several convulsive seizures. Brain was firm to touch and almost as hard as a brain that had been in Mueller's fluid for several weeks. The pia could easily be detached. Marked changes were found in the cortex and not a single normal pyramidal cell could be discovered. The cell-bodies were altered either in shape or in general appearance. The cell nuclei and nucleoli were distinct enough and were surrounded by the altered cell body, which did not properly take the ordinary staining. He thought this case could hardly be taken as a distinct form of idiocy and of arrested cerebral development.—(*New York Med. Jour.*, July 30, 1892.)

B. M. CAPLES.

FREQUENCY OF CEREBRAL TUMORS.—Seidel reports that Bollinger has found 100 cases of brain tumor in 8488 bodies dissected in the Munich Pathological Institute in 14 years, being 1 in 85. Hale White found 1 in 59. 27 were tubercular, 39 sarcomas, gliosarcomas and gliomas, 2 cysticerci, 1 actinomyosis, 3 cholesteatomas, 2 cysts, 2 carcinomas, 2 psammomas, 6 gummas, and in 16 cases the nature of the tumor was not mentioned. Of the 27 tubercular tumors, 6 were operable per se, although in three of these, other organs were also infected. Of the remaining cases, one was situated in the cerebellum and two in the occipital lobe. This gives, as available for operation, 11 per cent, as against 6 per cent (Starr) and 7 per cent (White). These three cases had presented no cerebral symptoms during life. Of the 39 sarcomas, gliosarcomas and gliomas, 2 were operable, and had been diagnosed a considerable time before death. The cases of cysticercus and actinomyosis were of central location and not amenable to operation. The two carcinomas were of the size of a filbert and in an accessible location, but were metastatic in their nature. Of the cysts, one was multiple and the other larger than an entire hemisphere. Of the two psammomas, one was central; the other was found accidentally in the body of a man of 77 years. Of the 16 tumors of unspecified nature, one only was operable.—(*Berlin. Klin. Wochensch.*, No. 26, 1892.)

G. J. KAUMHEIMER.

TUMOR OF OPTIC THALAMUS.—Dr. Major gives notes of the case of a girl, aged 23, who for months before admission to hospital had pains in left temporal region, worse at night. Could read perfectly, but noticed that on looking at two people she only saw the left one. Two months later sought treatment for her sight; one eye was hemiopic. Five weeks later suddenly lost power in right arm, leg and side of face. There was some numbness of right side and thickness of speech, but no aphasia or loss of consciousness. Regained power to a great extent. Three weeks later she had a similar attack from which she was recovering on admission. Was bright and intelligent. Temperature a little raised; right pupil dilated; right synonymous hemiopia; paralyzed muscles, flaccid. Diagnosis: tumor of posterior part of left optic thalamus pressing upon posterior limb of inner capsule. Iodides given. Fever increased and delirium commenced; then prolonged stupor and death. Post mortem: some meningitis, and left optic thalamus distinctly enlarged; on section, posterior part contained a rounded, firm, slightly greenish-colored tumor, which pressed upon the posterior portion of the inner capsule. Structure was not typical, microscopic examination showing nests of large ill-defined cells imbedded in a fibrous tissue.—(*Lancet*, April 23, 1892.)

B. M. CAPLES.

A CASE OF GLIOMA TELEANGIECTATICUM.—The specimen shown was obtained from the brain of a laborer, aged 41. He had always been healthy up to about a month before death. At that time, during a great effort, he noticed a tremor of the left extremities. He then immediately lost all power over his limbs and sank to the ground, but was fully conscious. On admission to the hospital, almost a month later, active motion on the left side was almost impossible. Passive motion caused pain and elicited considerable resistance. There was no disturbance of sensation. The patellar reflex, as well as the mechanical and galvanic excitability of the muscles on the left side, were increased. The left leg, according to the patient, felt colder than the right. The only complaint was of headache, which became worse. Pulse 48. Sopor, followed by excitement, set in and death in coma followed on the fourth day in hospital. Autopsy revealed a noticeable dryness of the membranes, an enlargement of the right hemisphere and flattening of the convolutions on that side ante-

riorly. The white substance near the right nucleus caudatus showed a diffuse yellow color. Section of the right hemisphere showed a large soft focus, measuring 5 cm. in a sagittal and 4 cm. in a transverse direction, consisting partly of blood and in part of a soft, glassy, gray tissue. The surrounding tissue was stained a diffuse yellow. Microscopic examination showed the tumor to be a glioma, rich in cells, with thin-walled, dilated vessels, fresh blood clots, some brown pigment and occasional granular cells. The author attributes the first rupture to the sudden exertion. A tumor of the brain was suspected during life.—(Dr. A. Kruse, *Deutsche Med. Wochenschr.*, No. 28, 1892.)

G. J. KAUMHEIMER.

CEREBRAL CYSTICERCUS.—Dr. Matignon reports (*Jour. de Med. de Bordeaux*, July 12, 1892) the case of a female found in the street aphasic and in collapse. On admission to an hospital she had generalized convulsions lasting from three-quarters of an hour to an hour. The following day right hemiplegia with aphasia and relaxation of the anal sphincter was evident. The heart was normal. Two days later the patient died. The lateral ventricles were free from lesion. On the left third frontal convolution a tænia cyst was found; on the anterior extremity of the left first frontal convolution another, and on the inferior face of the cerebellum a third. The right sphenoidal lobe contained a walnut-sized cyst with cartilaginous walls; clearly a degenerated tænia cyst.

J. G. KIERNAN.

PITUITARY-BODY TUMOR.—Dr. Christian (*Ann. Medico-Psych.*, July-Aug., 1892) reports a case in which a melancholiac developed vivid visual hallucinations which persisted during five years of Dr. Christian's care. He became completely paretic. On autopsy a chicken-egg-sized tumor was found to fill the sella turcica and strongly imbedded in the cerebral substance, from which it was, however, distinct. This pediculated tumor, adhering strongly to the sella turcica, had prolongations flattening the optic nerves. The optic fibers up to the corpora quadrigemina were diminished. The chiasm was compressed by the tumor which had developed in the pituitary body and preserved a lobulated appearance similar to it. The anterior portion had creased deeply into the base of the encephalon. It was symmetrical in development and weighed twenty grams. It contained

trembling pulpy mass limited by fine connective tissue fibers. In the front of this pulp was a hæmorrhagic patch due to vessel rupture.

J. G. KIERNAN.

ABSCESS OF THE BRAIN.—Dr. Hartmann demonstrated an interesting case of brain abscess before the Congress of the German Surgical Society, held at Berlin, June 8. The patient had fallen from his horse in the last French war. After several years he began to suffer from headache which gradually became serious. Was sent from one physician to another without relief. After opening and cleaning out of the abscess he was permanently cured.—(*Med. Record*, July 16, 1892.)

B. M. CAPLES.

ABSCESS OF THE LEFT FRONTAL LOBE. Gouget reports the case of a man, aged 54, who, while in his usual state of health, suddenly lost consciousness. Recovery was rapid and complete so that he was able to resume work. Shortly afterward he again became suddenly unconscious, this time remaining so. Taken to hospital and found to be comatose, and to have complete right hemiplegia with conjugate deviation of head and eyes. Under influence of repeated injections of ether recovered sufficiently to recognize parents and respond to questions by signs, but quickly became comatose again. Died four days after admission. At necropsy a circumscribed abscess was found in second left frontal gyrus; from this between three and four "spoonfuls" of very thick pus were evacuated. The anterior wall of the abscess cavity was situated about two centimeters behind the anterior boundary of the frontal lobe; "posteriorly and below", the limit corresponded with the anterior extremity of the corpus striatum which was slightly infiltrated with pus. Owing to absence of diagnostic signs surgical interference was impossible; this Gouget regards as unfortunate, since it offered every prospect of success.—(*Brit. Med. Jour.*, July 9, 1892.)

B. M. CAPLES.

FOCAL LESIONS IN THE MEDULLA.—Dr. Leo Chassel discusses this subject in connection with four cases. Case I was a boy of 11, who developed an osteomyelitis of the left tibia after a slight traumatism. 17 days after the injury, and 11 days after the first abscess was opened, clonic spasm of the left lower extremity was observed. The next morn-

ing he said his neck was stiff and that swallowing was difficult. The head was constantly turned to the left. P. 120, small, soft and dicrotic; R. 20, costo-abdominal in type. Speech was not involved; the uvula was slightly deflected to the left. Patient said the nucha was sensitive to touch. Motility intact; periosteal reflexes absent; patellar reflex increased; some indication of knee and ankle clonus; some hyperalgesia over the entire body. The clonic spasm continued to recur 2 or 3 times a day. The other symptoms remained the same until death on the ninth day after the appearance of cerebral symptoms. The cerebral changes found on autopsy were: A slight quantity of cloudy serum in the lateral ventricles; the substance of the outer part of the pyramid and the inner and lower portion of the olivary body on the right side were completely softened and of a reddish gray color; the lower part of the right pyramid was filled with miliary hæmorrhages. On the left side of the lumbar enlargement, at the level of the lumbar roots, a small quantity of a fibrinous exudate was found. Chassel counts this as an abscess of the medulla. In this he follows the example of Erb. He assumes, however, a very unusual mode of infection and points out that the usual theory of embolism would hardly explain this case. It would certainly be very unusual to find, in a case of pyæmia like this one, a single embolus in the brain and not one in the internal viscera. In this case the author believes that at least the inflammatory lesion, if not the infection, traveled up the nerve trunks to the cord. The limited lumbar meningitis would support this view. Its path within the cord he could not determine, as no examination was made. A similar route is assumed, without objection, in cerebral abscess following suppurative otitis. Case II. Male, aged 50. Two weeks before, the left side had become paralyzed. There had been no loss of consciousness, but severe vertigo, headache and vomiting. On admission the right oral angle was drooping and the facial folds on that side obliterated; the pupils reacted to light, the eyes could not be moved laterally, but could be moved somewhat upward and downward. There was rotatory nystagmus of the right eye and bilateral ptosis, more marked on the left side. Patient could read large print. The mobility of the left upper extremity was reduced, sensation being normal. Both motion and sensation were reduced in the left lower extremity, but patellar reflex was normal. Patient died after 5 days stay in hospital of pneumonia. Autopsy

showed a serous infiltration of the meninges of the convexity. The ependyma of the ventricles was thickened. The region of the right olive and pyramid was swollen. On opening the fourth ventricle a semi-globular tumor was seen reaching from the locus cæruleus to the striæ acusticæ, which were pushed backward, and involving the right side more than the left. The width of the tumor was 3 cm., its length 2 cm. and thickness 1 cm. On section it was seen to be due to a recent hæmorrhage which extended into the pons and medulla. The vertebral arteries were atheromatous. Case III was a male, aged 32. *This patient noticed a difficulty in swallowing, and twitching of the right arm and leg. The next morning, when he awoke, he found that he was paralyzed on the right side. When first seen, 12 days later, the right side was weaker and clumsier than its fellow, there was vertigo on standing and a suggestion of knee clonus. Touch and pain sense were much reduced in the right leg, less so in right arm. The progress of the case was as follows: 27th day: speech, deglutition and mastication have become more difficult. There is some regurgitation of fluids. 32nd day: walking more difficult, complains of dizziness, headache and bilious vomiting. 47th day: tearing pain in right hand. Right arm and right knee are stiff. Bilateral ankle clonus and severe vertigo. 48th day: speech has become more and more nasal, uvula deflected to the right, the palatal arch was lifted somewhat on phonation, not on touch. Facial nerves intact. 51st day: on turning the head to left, an attack of dyspnœa occurred. Slight ptosis on left side, sense of taste much reduced and uncertain. 62nd day: rectal incontinence, slight paralysis of left abducens. Tongue can only be protruded 1 to 1½ cm. 69th day: constant twitchings in right arm, so that patient lay on it to stop them. He states that any attempt to turn to the left causes vertigo and vomiting. Breathing is impeded. 72nd day: biting is difficult. The left side of face is paretic. 79th day: speech unintelligible; incontinence of urine. 91st day: on raising the patient, fainting and spasm of glottis occur. 101st day: eyes turned to right and fixed. Death on 128th day from pulmonary œdema. Autopsy showed the pons to be about one-third larger than normal. Its substance, excepting the superficial portion of its anterior half, was changed into a reddish-gray very vascular tissue,

*This case has already been published by Mader, Jahresb. d. Rudolf-Stiftung, 1886.

gelatinous in spots, and interspersed with foci of dry cheesy material varying in size from a hempseed to a pea. This change extends about 1 cm. into the medulla, but only in its central part. Case IV was a woman, aged 57, who complained of vomiting, vertigo and weakness of sight for six weeks. The vertigo disappeared in the recumbent position. Vomiting followed upon motion. Examination revealed rigid peripheral arteries. On turning the eyes to the extreme left, the left eye halted a little and then after a few twitching movements passed back to the median position. There was a slight paresis on the left side of the face. In sitting, the patient leaned to the left. In walking, there was a tendency to fall to the left, even with the eyes closed. Later, the head was turned rigidly to the left. Death after an illness of about eight weeks. Autopsy showed the pia at the base to be covered with tubercles, varying in size from a mustard to a hempseed. In the left lateral recess of the 4th ventricle a cheesy nodule larger than a pea was found. This projected into the ventricle a little and was covered by a thin layer of reddish tissue. Another nodule as large as a hempseed lay between this and the raphe, about 2 mm. distant from the latter. The striæ acusticæ could not be seen on the left side and were indistinct on the right. The diagnosis of lesions of the medulla is very difficult, in fact, unless nuclear lesions can be demonstrated, almost impossible. The facts that the medulla is crowded with important systems of nerve fibers, that lesions of slight extent may cause varying, if not conflicting symptoms, that some cases of bulbar lesion may cause only peripheral paralyses, or even no symptoms, all tend to obscure the clinical picture. Besides this, our knowledge of medullary reflexes, and even functions, is limited. Owing to the short and direct course of the bulbar nerves we cannot differentiate between a lesion at their origin and in their course within the skull. Glycosuria has never been observed in lesions of the medulla in man, although the piqure is invariably successful in producing it in animals. Cases II and IV presented no bulbar symptoms whatever. Chassel then attempts to harmonize various symptoms observed in these cases. The turning of the head to the left (case I), the rotatory nystagmus (case II), the vertigo and turning of face and eyes to the right (case III), and the similar symptoms in case IV, he considers as disturbances of co-ordination and forced positions. Bechterew has shown that forced movements and positions result from unilateral lesions of the

olives, the posterior cerebellar peduncles, the acoustic nuclei and the upper layers of the cerebral peduncles, and that they disappear upon the infliction of a symmetrical lesion. The author assumes that our relations with surrounding space are regulated by the consensual action of the eye, the ear and the muscular sense. He also assumes the existence in the medulla of subcortical centres in reciprocal relation with all these points. The paths of these relations he places in the fillet. If by a lesion of the medulla these centres be affected, certain peculiar motions and positions are called forth, which are commonly called "forced." The author believes these to be pathognomic of bulbar lesions.—(*Wien. Med. Wochenschr.*, Nov. 9-13, 1892.)

G. J. KAUNHEIMER.

LOCAL ANÆSTHESIA AS A GUIDE IN THE DIAGNOSIS OF LESIONS OF THE LOWER SPINAL CORD. Dr. M. Allen Starr writes an elaborate and interesting article upon this subject. It is one that is very difficult to abstract, for it should be read in detail and in connection with the illustrations that accompany it. We abstract the following: "The distribution of anæsthesia in lesions of the lower part of the spinal cord is divided into zones. 1. The *first zone* is oval in shape, small in extent, and includes the perineum, the posterior part of the scrotum in males, the vagina in females; it also includes the mucous membrane of the rectum. 2. The *second zone* is heart-shaped—point up—and includes the entire scrotum and posterior surface of the penis and mucous membrane of the urethra in males—the entire genitals of the female, except the outer surface of the labia majora and the mons veneris. 3. The *third zone* is considerably larger, involving a greater surface of the buttocks and extending down the back of the thighs over a triangular area, point down. This has been named the "saddle-shaped area," coinciding about with the surface of the seat in contact with the saddle when riding. A zone of anæsthesia of this shape is due, as the autopsy in Oppenheim's case shows, to a lesion involving the fifth, fourth and third sacral segments. 4. The *fourth zone* is of a similar shape to the third, but more extensive, a greater surface on the back of the thighs being involved, and the anæsthesia extends in a band almost as low as the popliteal space. This area has been established clinically in several cases: there is, as yet, no autopsy to determine its lesion; but since the smaller

zone is due to lesion at the third sacral segment, and the next larger zone is due to lesion in the fifth lumbar segment, it is allowable to conclude that this region corresponds with the second and first sacral segments. In thus outlining four zones of the skin and assigning them to various segments of the sacral portion of the spinal cord, it is not my intention to lay down artificial boundaries or to affirm that all cases will exactly coincide. The lesions in the sacral cord are not limited exactly to one or two segments. The sacral cord is small in extent and lesions involve it to a greater or lesser degree, consequently these zones are not always symmetrical on the two sides of the body; the lesion being a little higher on one side of the cord than on the other, the zone of anæsthesia will be greater on one thigh than on the other, as in my first, fifth and sixth cases, and in those of Herter, Mills and Osler. I only wish to show that as the cord is invaded by disease from below upward, the area of the skin which becomes anæsthetic increases in extent, and that the shape of the area is characteristic; so that from the study of the area the extent of the lesion can be determined. 5. The *fifth zone* of anæsthesia is seen to include the first four zones and to extend down the back of the thigh through the popliteal space in a band, and then to descend the outer surface of the leg to the foot. In some cases it ends at the ankle, in others it involves the entire side of the foot, dorsum and sole, and three and a half toes. Eulenberg's case, cases of Kahler and Mills not cited here, and my second and fifth cases demonstrate this distribution. When a lesion extends from the sacral into the lumbar cord the anæsthesia extends from the thigh down the outer side of the leg. This area then corresponds to the fifth lumbar segment of the cord. 6. The *sixth zone* of anæsthesia is produced by a lesion of the third lumbar segment. When the third lumbar segment is diseased, the entire back of the thighs and legs is anæsthetic, and the front of thighs is also anæsthetic, except over a funnel-shaped zone which extends from above downward, the narrow tube of the funnel reaching along the shin even to the foot. This zone will probably be separated later into two separate parts corresponding to lesions of the fourth and third lumbar segments. There is not as yet a sufficient number of cases to warrant such a distinction. The exact limits of anæsthesia on the feet are still uncertain, and no more

exact statement than that given is warranted. It is quite common to find the inner arch of the foot sensitive when the toes and heel and entire dorsum are anæsthetic, and it is probable that the higher the lesion the greater the anæsthesia on the foot. 7. The last and *largest zone* of anæsthesia is produced by a lesion of the four lower lumbar segments, that is, by destruction of all but the first lumbar segment of the cord. It will be noticed that the line of anæsthesia is much lower in front than behind, and that it follows the line of Poupart's ligament. It is only when the first lumbar segment of the cord is invaded that the abdominal wall becomes anæsthetic. From this level upward, the zone of anæsthesia extends around the body in a girdle, and there is no difficulty in locating the level of the lesion in the dorsal cord. It is to be remembered that in all these lesions and areas of anæsthesia, the *anus, perineum and the genitals are included in the insensitive region*. This is an important fact in the differentiation of cases of organic from functional paraplegia. It is also to be noticed that the shape of the area of anæsthesia in the back differs in organic and in functional cases.—(*Am. Jour. Med. Sciences.*)

CONCUSSION OF THE SPINAL CORD. Dr. MacDougall reports the case of a man who fell backward from a moving railroad train. There was no loss of consciousness. Legs absolutely paralyzed; sensation was distinctly impaired; bladder paralyzed; bowels constipated; temperature subnormal; pulse feeble. Two days later there was no evidence of improvement in motility but sensation returned somewhat rapidly. Third day could move ankles and toes and could very feebly and slowly draw up his legs. Bladder began to regain its expulsive power. At the end of a week could move his limbs freely; use of catheter no longer necessary; sensation fully re-established; temperature normal. After three weeks was allowed out of bed. Could stand firmly, but power of walking was feeble and unsteady. Six weeks after accident, with aid of stick could move about with comparative freedom. About a year after accident author examined him and found him in perfect health, patient stating that he was as vigorous as in his earlier days.—(*Lancet*, July 16, 1892.)

THE REFLEXES IN SPINAL INJURIES. From an analysis of twenty-nine cases of injuries to the cervical and dorsal regions of the spinal cord under his observation, Thorburn concludes that in total transverse lesions of the spinal cord, both superficial and deep reflexes below the functional level of injury are permanently and entirely abolished, while in partial lesions the reflexes are retained, perhaps exaggerated. It is thought that abolition of reflexes is dependent upon isolation of spinal centres from their cerebral connections. It is further concluded that shock is not the cause of early loss of reflexes in spinal injuries. If the lesion causes complete paralysis and anæsthesia, deep reflexes are always lost. If motility or sensibility, or both, return, reflexes likewise reappear. The rectum and bladder participate in the derangement of reflexes.—(*Med. News*, July 23.)

B. M. CAPLES.

A NEW SYMPTOM INDICATING COMBINED CEREBELLAR AND SPINAL INCO-ORDINATION. Dr. Spitzka reported a case before the American Neurological Association, of a child whose attitude and appearance were characteristic of that form of pseudo-hypertrophic paralysis in which the atrophy of the arms markedly antedated wasting in the lower extremities. Whether dressed or undressed, under examination and observation or not, patient had a habit with his right hand thumb and fingers flexed (fingers but slightly so) of making a sudden motion toward the nose, while at the same time there was a straightening out in his attitude, and stiffening of the muscles involved in maintaining the erect posture were associated in the act. A peculiar expression would 'cross his face, head and eyes being turned toward the approaching fingers. The child had certain imperative conceptions, such as the fear of going under a certain tree; terror of a Newfoundland dog at later hours of the day, for which at other times he showed great affection; fear of the stairs, and even on the level floor of the house he had an impression as of a yawning precipice. Three members of father's family were insane. The child had progressed as these cases usually do, had developed a marked grade of imperative conceptions and morbid fears and a slight degree of imbecility.—(*Med. Record*, July 30, 1892.)

B. M. CAPLES.

HETEROTOPIA OF THE SPINAL CORD. Dr. Ira Van Gieson read a paper on the subject of bruises of the cord as related to the cases of so-called heterotopia, or congenital malformation of the cord substance, before a meeting of the New York Neurological Association on June 7. After very careful study of the literature of all the available microscopic specimens, and after experimental work, the speaker has been forced to the conclusion that most of the malformations of the cord that had previously been published were really cases in which the cord had been injured in the removal and in the process of hardening. The fact that microscopic examination of cords accidentally or experimentally injured showed the same distortion of displacement of the constituent parts as the specimens exhibited as cases of congenital malformation, had led, at once, to doubt of their having been cases of true heterotopia of the cord. The speaker said that it was very easy to mistake such distortion for malformation when the cord did not show any gross injury. It took very slight pressure on a cord in a recent state to cause separation of its structures. The evidence of such injury would show itself in the section by a displacement of some of the white or gray matter to the higher and lower level, or by one or more of the horns being crowded to one side or the other, or being almost, or quite, obliterated. The proof of such an injury being the cause of displacement was, that in making further sections the absent or distorted portions would be found in different situations. The author illustrated the subject by a large number of lantern slides, the specimens having been taken from his own and other observers' work. In the course of his remarks he referred to the specimens that were labelled "malformations of the cord in cases of acute myelitis". He did not see how it was, that the fact of the extreme softening of the cord which always took place in this disease had been overlooked, making it almost impossible to handle the cord without inflicting injury, so that sections in such cases would be sure to show distortion of some of its elements. Very careful analysis of these cases pointed clearly to their being post mortem injuries and not congenital malformations of the cord. Some of the specimens showed how pinching, bruising or doubling of the cord produced the abnormal conditions, such as enlargements or small nodules, which were frequently seen, and, microscopically, how masses of gray matter might be found in the white sub-

stance, the gray horns attenuated, enlarged, distorted or absent in part, or wholly, the presence of three or more horns, and also why the fibers were sometimes found taking abnormal directions. From his very thorough study of the subject the author has been forced to the belief that, if he could produce experimentally conditions identical with those that had previously been described as congenital malformations, he was very much in doubt as to their being genuine. And also the fact that such abnormal conditions of the cord had not produced any corresponding symptoms in itself, militated very much against the diagnosis of cord disease. The author says the mallet and chisel are to be avoided, as the blow or jar upon the cord is a fruitful source of injury, and also that if the chisel is forced against the cord, while it has resilience enough to spring back and not show the pressure, it may show it microscopically, hence these instruments should not be used. The author always employs a saw and scissors, and in hardening the cord it should be suspended in a tube.—(*New York Med. Jour.*, July 16, 1892.)

B. M. CAPLES.

THE RELATIONS OF SENILE CEREBRAL ATROPHY TO APHASIA.—The focal symptoms of paretic dementia, among them aphasia, are seldom due to appreciable focal lesions. The general opinion is that the aphasia of senile cerebral atrophy, except the amnesic form, is always due to a coarse focal lesion. Pick reports a case of senile atrophy presenting symptoms like those of Wernicke's "transcortical sensory aphasia," namely: loss of understanding of vocal and written speech, paraphasia and partial loss of the ability to repeat spoken words, in which autopsy showed an atrophic brain weighing without the membranes 1150 gms. The right hemisphere weighed 500 gms.; the left 470 gms. All gyri were small, especially those on the left side, the atrophy being especially pronounced in the left temporal lobe. No coarse lesion could be detected. Pick quotes a case from Bevan Lewis, which presented amnesic and atactic aphasia, with great atrophy of the left frontal and parietal lobes and less pronounced atrophy over the rest of the brain. Skwartzoff reports a similar case of simple cerebral atrophy, from Magnan's practice.—(*Prag. Med. Wochensch.*, No. 16, 1892.)

G. J. KAUMHEIMER.

MULTIPLE VISION. Venturi (session of the Italian Freniatrial Society, *Archivio Italiano*, 1891) reported a case of an individual belonging to a family with strong neurotic tendencies, who presented certain peculiar symptoms. One was a peculiar intolerance of the quinine salts, the use of which was followed within a few hours by pruritus, bullæ and swelling lasting twenty-four hours, and producing a pronounced and troublesome balanitis. The other was that the patient was subject to sudden nervous attacks, during which all the objects that came into his view were multiplied forty or fifty fold, varying according to their size and the extent of the visual field. During this, consciousness was perfect, and the individual realized that the phenomenon was only a subjective one. The author was inclined to interpret this phenomenon not as of cortical but rather as of peripheral origin, due to some spasmodic action of the accommodation muscles. In the discussion Tamburini held that it could also be explained by assuming it the result of some special vibratory movement (due to the nervous attack) of the perceptive cells in the cortical visual centres, so that there was either a lack of fusion of the contemporaneous images, which thus remained separately presented to consciousness, or a so rapid appearance of the different successive images that they appeared to the consciousness as simultaneous.

H. M. BANNISTER.

CASE OF TOXIC CENTRAL AMBLYOPIA, TERMINATING IN PROGRESSIVE ATROPHY.—Patient excessive drinker and smoker. For two years has suffered from dragging pains in various parts of body, for relief of which he drank alcohol and applied it externally. Pain in head which is worse at night and after drinking. Tenderness of large nerve trunks. During past six months vision has failed progressively. Direct and consentaneous pupil reflexes torpid; accommodation reflex more active. Sight impaired in centre of visual field. Scotoma symmetrical in each field, and oval. Outside of central amblyopic region visual field more nearly normal, except at periphery. Right field, is peripherally contracted at upper and nasal limit. Left field is contracted somewhat at its nasal boundary. Color perceptibly impaired. Diagnosis of central amblyopia dependent upon a toxæmia due to tobacco and alcohol. The case is one of obtacco-amblyopia with the added factor of a progressive

atrophy, as shown by extensive involvement of color sense and commencing limitation of visual fields, together with a peripheral alcoholic neuritis that preceded the eye symptoms and continued with them. Dr. Hutchinson observed that strong tobacco was the controlling drug in these cases in England, whereas in Germany, Uthoff found that alcohol played a greater etiological part in the production of amblyopia. The etiological indication is our guide to treatment of central amblyopia and applies to all forms of toxæmic neuritis. Stop entirely the introduction of both poisons—alcohol and nicotine—into the system. Restore the normal nervous tone by a carefully regulated life, good hygiene, fresh air, tonics, and a nutritious and easily digestible diet. Iodide of potassium is a useful drug in these cases, especially where active ocular symptoms are present. Gentle galvanization of the eyes and extremities is followed by good results.—(*Med. Record*, July 16, 1892.)

B. M. CAPLES.

A CASE OF CONGENITAL FACIAL PARALYSIS. (*Schultze, Neurologisches Centralblatt*, No. 14, 1892.) Facial paralysis, except when the result of some injury during labor, is exceedingly rare, and up to the present time no cases have been reported. Möbius says that this condition has only been observed in connection with paralysis of the muscles of the eye, although he does not deny that it may occur alone. Schultze reports a case in which the only suspicion of complication of the oculo-motor nerve is a slight dilatation of the pupil on the affected side. The patient, a girl four years old, is of healthy parentage. Labor was normal and the paralysis was noticed immediately after birth. Upon examination the child presents the typical symptoms of left facial palsy with slight dilatation of the left pupil. Electrical reaction is absent. The cause, as well as the seat of the disease, is uncertain. The first thought that suggests itself is imperfect development of the facial nucleus, but a peripheral lesion cannot be excluded.

JOS. KAHN.

BILATERAL ACCESSORY PARALYSIS IN SYRINGOMYELIA. Dr. A. Schmidt reports a case of syringomyelia, probably of the cervical cord. There was bilateral atrophy of the muscles of shoulders and arms, with analgesia and ther-mæsthesia with intact tactile sensation, between the level of

the angle of the lower jaw above and the fourth costal interspace below, and in both arms. Rotatory nystagmus was present, but besides this the cranial nerves were not involved, with the exception of the accessory. Laryngoscopic examination showed complete paralysis of the left vocal cord, which was atrophied and in the cadaveric position. As the right vocal cord crossed the middle line in phonation, but moved only very slightly during respiration, a paresis of the crico-arytenoideus posterior was undoubtedly present. No disturbance of sensation in the larynx, or difficulty in swallowing. From the extent of the symptoms, the lesion in the cord would seem to be limited to the section between the fourth and eighth cervical nerves. The atrophy of the trapezius and sterno-mastoid muscles, and the laryngeal symptoms, must be referred to a nuclear lesion of the spinal accessory nerve. It is noteworthy, that while the entire extensive nuclear origin of this nerve seemed to be included in the pathological process, neither of the neighboring nuclei (vagus and hypoglossus) were affected in the least. The author assumes that prolongations of the degenerations extended from the main body of the disease in such a direction as to affect the accessory nuclei. It was evident, however, that some of the cells were functionally intact, as all the motor fibers of the vagus are derived from the spinal accessory, and there was no dysphagia. Schmidt then discusses a number of reported cases of lesion of the spinal accessory nerve and classifies the symptoms as follows: 1. Lesion external to the ganglion of the vagus, usually unilateral and restricted to the external (spinal) branch. As a result, paralysis, more or less complete, of trapezius and sterno-mastoid muscles. Lesion of the internal (vagus) branch is always accompanied by sensory disturbances on the part of the vagus. 2. Lesion at the base, between jugular foramen and foramen magnum, usually unilateral. Both branches involved. Omission-symptoms of external branch as in 1; of internal branch complete; unilateral paralysis of velum palati, pharynx and all laryngeal muscles, possibly rapid pulse. 3. Lesion situated in the vertebral canal at the origin or in the cord; frequently bilateral. Both branches involved, symptoms on part of internal branch usually incomplete; of external branch, as in 1.—(Dr. A. Schmidt, *Deutsche. Med. Wochens.*, No. 26, 1892.)

SYPHILITIC SPINAL PARALYSIS.—Erb has for several years noticed in subjects of syphilis certain forms of spinal disease, which in his opinion present so many peculiar characteristics that they constitute a well marked clinical variety. According to his paper (*Neurol. Centralblt.*, No. 6, 1892) disturbances of mobility, and later, severe spastic paresis, developing slowly in the course of months, or even years, are the chief peculiarities. True paraplegia is rare. The gait is exquisitely spastic, although muscular tension and contractures are slight. The patellar reflex is always increased. Disturbances of sensation are generally very slight and often quite difficult to demonstrate. Vesical insufficiency and diminution of sexual power are almost always present; muscular atrophy is generally absent. The electric irritability is normal. The upper extremities are never involved. The course of the trouble shows an unmistakable tendency toward amelioration. This is especially the case after energetic specific treatment. The clinical picture is so characteristic that Erb has repeatedly made the diagnosis of specific infection before obtaining the patient's history on this point. The differential diagnosis from the other chronic diseases of the cord, especially from tabes, multiple sclerosis, compression and syringomyelia, is easy. It can be distinguished from spastic spinal paralysis by the constant presence of sensory and vesical disturbance, and by the remarkably slight muscular tension, as well as by the history and course. The diagnosis from dorsal transverse myelitis is more difficult. Here the incompleteness of the paraplegia, if it occurs, and the tendency to recovery, as well as the slight muscular tension and slight sensory disturbances are to be noted. Its diagnosis from other syphilitic affections of the brain and cord, and from specific peripheral neuritis should not be difficult. Its relation to syphilis is established, not only by the fact that all the subjects were syphilitic, but that other etiological factors were absent and that all the cases were found to have occurred from three to six years after infection. This trouble seems to be much rarer than tabes. Erb refers the seat of the lesion to the posterior portions of the lateral columns of the dorsal cord, later extending to the posterior columns and posterior cornua. Its nature he believes to be partly infiltrative, partly degenerative. He thinks he has established its claims as a clinical entity, at least until further investi-

gation, and suggests the name which furnishes the title of this article.—(*Wien. Med. Presse*, No. 16, 1892.)

G. J. KAUMHEIMER.

A CASE PRESENTING THE SYMPTOMS OF LANDRY'S PARALYSIS, WITH RECOVERY.—Dr. Miles reports a case in the *Medical News* of July 9, entitled as above. Patient thirty-three years of age. Temperate in habits and had been in good health previously to attack described. On Nov. 26 caught a severe cold. Nov. 28 was wet by rain. Then experienced intermittent pain in calf of leg. About Dec. 1 he observed "a cold feeling across his toes as if he had dipped them in cold water". Same feeling attacked left upper lip as if it were chapped and air blew upon it. These feelings continued till Dec. 6. In afternoon of that day attempted to go up stairs and found he "did not have the power to raise the left leg from one step to the other without serious exertion in the way of dragging it". In a few days was confined to his bed, being unable to walk. Feelings of coldness and numbness continued to get worse and to extend upward on his legs to the knees, and also invaded the hands and arms to elbows, muscular power steadily failing from lower extremities upward. Dec. 17 lower limbs completely paralyzed. Muscles of trunk and belly greatly weakened. Could not sit up or turn on his side. He coughed, but with very little force. Hands and arms quite weak with tendency to assume the position of wrist-drop. Sensation apparently normal except that sensation of tickling on sole of foot was nearly or quite lost. Reflexes, both superficial and deep, were completely lost. No pain on pressing the muscles. Muscles responded normally to the faradic current, and to galvanic also responded normally, contracting quickly without a sign of degenerative action. Also contracted from nerve stimulation. Sphincters were intact. For three or four days the paralysis increased in the upper extremities until the patient could no longer use his hands. Abdominal muscles became so weak he could not cough. Facial nerves became involved in all their branches, more decidedly on left side. Patient could not frown; could not close left eye; could with effort barely approximate the lids of the right so as to make them touch; could not whistle. Articulation was somewhat defective from weakness of the labial muscles; tongue was unaffected; patient stated that it felt thick. Said he felt as if he were being smothered

by his own weight. Breathing became oppressed and he had several attacks of threatened suffocation. (Heart-action was not affected either in frequency or force.) At this point the progress of the disease seemed to be arrested, then improvement, especially of the respiratory symptoms, began and proceeded somewhat rapidly, face and arms recovering first. The 1st of January could raise himself in bed. On the 7th sat up on the side of bed. Next day dressed himself. On the 13th was able to walk alone. On the 20th was able to leave the house. A month later limbs were still a little weak and patellar reflexes still absent. The author thinks this case worthy of record because of the very close resemblance of its symptoms to those of Landry's paralysis, and does not see why it should not be considered as a case of that disease. It is noticeable that the symptom of oppression and difficulty in breathing that usually closes the scene in fatal cases of Landry's paralysis was prominent, and appeared to lack but little in severity to have caused death.

B. M. CAPLES.

INFANTILE PARALYSES OCCURRING DURING AND AFTER INFECTIOUS DISEASES.—Dr. M. Imogene Bassette publishes an interesting article with this title, giving the histories of eighteen cases. The author states that any of these forms of paralysis may be classed as toxæmic. In a large proportion of cases the pathological process cannot be called inflammatory; of the spinal cases there may be poliomyelitis or diffused myelitis; other cases may be due to multiple neuritis, or to the association of these with central disease. She reviews the infantile paralyses following scarlet fever, small pox, diphtheria, whooping cough, mumps, malaria in children and typhoid fever, and calls attention to the fact that hysterical paralysis may be developed after infectious diseases, and that it is important to be able to distinguish this from organic paralysis. In regard to prognosis, the cases of embolism, thrombosis or central hemorrhage will be permanent; cases due to encephalitis may be improved; cases due to uncomplicated neuritis are usually hopeful.—(*Jour. Nervous and Mental Dis.*) July, 1892.

THE CHARACTER OF DIPHTHERITIC PARALYSIS.—In eight autopsies upon children that had died from diphtheria complicated by paralysis, Arnheim found hyperæmia and capil-

lary hemorrhages in the medulla, inflammatory processes in the muscles, and interstitial and parenchymatous degeneration of the nerve fibers. A. believes diphtheritic paralysis to be due to parenchymatous neuritis.—(*New York Med. Jour.*, July 23, 1892.)

B. M. CAPLES.

COMBINATION OF PARALYSIS AGITANS AND LOCOMOTOR ATAXIA.—Placzek reports a case of this unique combination in a male, aged 52, who had had syphilis. The tabetic symptoms present were: reflex immobility of pupils, loss of teeth, impotence, lancinating pains, pronounced Romberg symptom, urinary incontinence and loss of patellar reflexes. Ataxia and disturbances of sensation were absent. The symptoms of paralysis agitans were also pronounced. The face was rigid, the bodily posture characteristic, tremor pronounced, slight propulsion but stronger retropulsion present. The tabetic symptoms began three years before the paralysis. P. has been able to find but one doubtful case, by Heimann, in literature. The author concludes that if the paralysis be due to organic lesions they do not involve the parts included in the tabetic trouble.—(*Berl. Klin. Wochenschr.*, No. 14, 1892.)

G. J. KAUMHEIMER.

PARETIC DEMENTIA AND LOCOMOTOR ATAXIA. — Dr. Joffroy says that while it is (*Mercredi Méd.*, May 25, 1892) generally admitted that the lesion in tabes first affects the nerve tubes and, perhaps, the cells of the central sensory nervous system, then the neuroglia and the vascular system, opinions differ as to paretic dementia. Some authorities, noticeably Magnan, hold that the disorder is essentially an interstitial peri-encephalitis. Others, like Joffroy himself, hold that the disorder affects the nerve cells and tubules, although just how, has not yet been satisfactorily settled. For others, who, like Raymond, see in paretic dementia but an interstitial inflammation, and in tabes but a parenchymatous change, the relation between the two disorders is easily settled. For those, however, who, like Joffroy, regard both disorders as resulting from a parenchymatous inflammation, the question is still in suspense. It must be admitted, Joffroy states, that tabes at the outset is characterized by a definite lesion of the central sensory system, while paretic dementia strikes haphazard, as it were, the motor, psychic and trophic systems, affecting

less frequently and more slightly the sensory system. In Joffroy's opinion the co-existence of paretic dementia and tabes in the same subject is an intercomplicatory coincidence; similar coincidences exist between paretic dementia and disseminated sclerosis, organic hemiplegia and other neuroses. Cases exist, however, he admits, which present symptoms common to both disorders. The two neuroses are related; not sisters, but first cousins. Predisposition to both appear in the same family, and syphilis may excite both. Raymond, in discussing Joffroy's opinions, said that they differed only in minor details. It could not be positively affirmed that in either paretic dementia or tabes the lesion was primitively parenchymatous or primitively interstitial. There were merely strong presumptions in favor of the primitively parenchymatous character of the lesion in tabes. Raymond had used the term interstitial encephalitis in its current sense without reference to the primitive lesion. He did not believe, however, that symptoms of tabes could appear in paretic dementia unless they resulted from tabetic lesions. He agreed with Joffroy that both disorders were nearly related and that syphilis could precipitate the occurrence of either in predisposed subjects.

J. G. KIERNAN.

TABES AND PARETIC DEMENTIA.—Dr. Reudu (*Mercréd. Méd.*, June 25, 1892) concludes that because paretic dementia attacks an ataxic, or vice versa, there is no reason for placing these neuroses in a special class, albeit new symptoms may result from their co-existence. The two disorders are pathological relatives.

J. G. KIERNAN.

LOCOMOTOR ATAXIA, according to Dr. Raymond, (*Prog. Méd.*, June 11, 1892) is a disorder of ripe age which rarely attacks children or old men, but is sensibly more frequent in men than women. Neuropathic congenital predisposition plays a part in certain cases, but the disorder is rarely the direct product of heredity. Exposure to cold and moisture, forced marches, venereal excess and grave traumatisms, sometimes seemingly play a part in its causation. Such cases are rare compared with those occurring inluetics, sometimes without apparent exciting cause. The vast majority of tabetics have been luetic. Lues, however, is not absolutely essential to the production of locomotor ataxia.

J. G. KIERNAN.

HEREDITARY ATAXIA.—Dr. Chr. Leegarda describes three cases of hereditary ataxia in three members of the same family. The parents were healthy and had always been so. None of the parents had suffered from any sickness of importance, neither had they been addicted to drink. They had had ten children in all, of whom eight were living. The members alive are: Ole, 32 years of age, a smith, married, and has a healthy child 8 months of age; Anne, 29 years of age, unmarried; Nils, 25 years of age, married and childless; Karen, 23 years of age, unmarried and suffering from hereditary ataxia; Kristian, 20 years of age, unmarried, a sufferer from hereditary ataxia; Severion, 18 years of age, well and unmarried; Ludvig, 16 years old and a wood-chopper; Karl Johan, 13 years of age, and afflicted with Friedreich's disease. The original gives the complete history of each case. The hereditary origin of the disease is unmistakable in all the three cases, without there being anything in the parents or the relatives to point to a hereditary entailment. None of the patients present the slightest signs of deficient development. The disease made its appearance without any apparent cause, at an age varying from the eighth to the fourteenth year. It began with slight feverish symptoms and trifling pains, and soon passed into the progressive chronic stage. The ataxia is the most prominent symptom. The two brothers, Karl and Kristian, pass the day in their chairs. Karl Johan still crawls about, but in an unsteady and zigzag manner. Besides the usual spinal ataxia there is a trace of the cerebellar form in the two oldest, apparent by the absolute loss of equilibrium, and a tendency to walk in a zigzag manner in the younger. But besides these two peculiarities, there is a decided spastic element in the movements of the patients, and the muscular tonus is good while at rest, even being somewhat increased. This may be explained by an implication of the pyramidal tracts, and is the more important as the contrary holds good in tabes dorsalis. In Kristian there is a slight tendency to club foot, which would also come under this same condition. The muscular sense is much better than one would expect to find, especially while the patient is lying abed. When standing, or during walking, the equilibrium is lost entirely when the eyes are closed. As in tabes, the tendon reflex is wanting, but the cutaneous reflexes, on the contrary, are present and may be very distinct. The symptoms are espe-

cially prominent in the lower extremities, and only a little to be seen in the upper. Speech is only slightly altered in Karl Johan, and nystagmus is to be observed in none of the patients. Two of them have scoliosis. Although the lower limbs are so useless, the general strength is good and the resistance striking. In Karen, only, is there to be observed a slight decrease in the strength of the ilio-psoas muscle on both sides, and this also probably holds good of the remaining pelvic muscles, especially of the glutei. All the senses are good in all the patients, only Karl Johan having a slight narrowing of the field of vision. It may be added, for the sake of completeness, that the affection runs its course without pain; that atrophy and electric changes in the nerves and muscles are lacking, no trophic symptoms of any kind being present, and that the bladder and rectum are uninvolved, and the complete picture of hereditary ataxia is present.—(*Norsk Magazin for Lægevidenskaben*, No. 5, 1892.)

FRANK H. PRITCHARD.

PRIMARY MYOPATHY.—Dr. Peterson presented a case of primary myopathy before the New York Neurological Ass'n, at a meeting held on June 7. Patient aged forty-five years. Four years and a half before, patient had noticed a drooping and weakness of shoulders. Attributed this to his hard work as a mason. This weakness had gradually increased and spread to other parts of the body. The most striking feature at first sight was the "winged scapula" of serratus paralysis on both sides. Besides the serrati there was complete wasting of the sternal portion of each major pectoral, and there was marked diminution in size of both long supinators, of right triceps and biceps, of both trapezii and of right thigh and buttock. There was also slight asymmetry of mouth and forehead, as if right half of face were somewhat involved. As was to be seen on examining patient, the forearms and hands were absolutely free from the disease. The deltoids were large as compared with the wasted muscles about shoulders; they were very firm and might possibly have been hypertrophied. Both calves were comparatively large. There was no anæsthesia anywhere and there were no fibrillary twitchings. Knee-jerks and wrist-jerks perfectly normal. All muscles reacted to faradism, but there was a quantitative change in the reaction in direct proportion to amount of wasting. The case was interesting because of its rarity. It was, of course,

not an Aran-Duchenne, or peroneal type of progressive muscular atrophy, but a primary myopathy, and the only question in the mind of the speaker was, whether to consider it an Erb's juvenile form, or a Landouzy-Déjérine type. Dr. Sachs thought that the case presented pretty distinctive features of primary dystrophy, rather than of any other form. He had seen two cases of the juvenile type of progressive muscular atrophy in adults which corresponded in many particulars to the one presented by Dr. Peterson.—(*New York Med. Jour.*, July 16, 1892.)

B. M. CAPLES.

PHLEGMON OF THE THIGH, WITH EXTENSIVE DENUATION OF THE SCIATIC NERVE.—The patient fell upon a pitch fork, one prong of which ripped up the muscles of the back of the thigh from the knee almost to the buttock. In enlarging the wound by opening fistulous track, the nerve was found lying at the bottom of the wound denuded to an extent of 20 cm. An extensive phlegmon developed so that the nerve ran through a pool of pus. During the first week the nerve looked normal and there were no signs of irritation. During the second week the nerve lost its luster and became of an opaline grayish color. Its motor and sensory functions below the knee were normal. Symptoms of irritation, in the shape of fibrillary twitchings and rheumatoid, radiating pains appeared and persisted until the end of the sixth week. During the third week, the sheath of the nerve sloughed and separated. At this time the nerve-trunk was painful on pressure to its exit from the pelvis. At the end of the fifth week, the nerve had become covered by granulations. Although the nerve was bathed in pus for four weeks there was at no time any interruption of its function.—(*Dr. Buschke, Deutsche Med. Wochenschr.*, No. 15, 1892.)

G. J. KAUMHEIMER.

COMPRESSION MYELITIS ASSOCIATED WITH A COLUMNAR AREA OF NECROSIS EXTENDING A CONSIDERABLE DISTANCE ABOVE COMPRESSED PORTION OF THE CORD.—Dr. Ira Van Gieson presented microscopical specimens from the above case before the New York Neurological Ass'n. Patient was a middle-aged man, who had been run over by an ice cart, sustaining a fracture in lower dorsal region. Survived accident two and one half months. During this time there was an extreme degree of paraplegia and very extensive trophic

changes, giving rise to enormous bed-sores. One of these sores extended from sacrum upward between scapulæ, while there were ulcers over heels and very deep ones extending even between the calf muscles. At autopsy nothing was found worthy of note except the condition of spinal cord. This was so greatly flattened in eighth or ninth dorsal segment as to measure only three by six millimeters. Above this flattened portion in the dorsal region, and in seventh cervical segment, was a columnar area of softening situated in posterior columns and involving caput of right posterior horn. On cutting cord transversely the softened material flowed out leaving a sharply rimmed cavity. Microscopical examination of flattened portion showed cord had degenerated into a fluid mass contained within membranes. The columnar area of necrosis was readily seen with a low magnifying power. Dr. Van Giesen also referred to a similar case which had been reported by C. L. Dana, and exhibited the plates illustrating this one. He reported this case, because with one exception it appeared to be unique, and because he was unable to understand the nature of this process.—(*Med. Record*, July 9, 1892.)

B. M. CAPLES.

MULTIPLE NEURITIS.—Dr. W. H. Gilbert read a paper at a meeting of the Congress of Neurologists held at Baden-Baden, on two cases of polyneuritis which presented some striking features. The first was that of a man, aged 56, member of a "very nervous family," and himself of very irritable and hasty temper. In February, '91, he had an illness, thought to be peliosis rheumatica, in which he suffered great pain, followed by cutaneous anæsthesia and muscular paralysis of extremities. Improved somewhat under electrical treatment and massage, but when first seen by author was emaciated to an extreme degree. There was general muscular atrophy. Abolition of patellar and plantar reflexes, while the nerve-trunks, which could be felt through the attenuated lower limbs, were the seat of painful nodular swellings. Some loss of control over the bladder and rectum. Under treatment improved slightly so that he could walk better, and gained a little in weight. An attack of diarrhœa, brought on by exposure to cold, rapidly reduced his strength and he died July 9. The other case was that of a woman, 32 years of age. On Feb. 2, 1892, swallowed a large quantity of "Schweinfurt green" with suicidal intent. Recourse to the stomach-pump and other

measures averted a fatal issue. Then ensued great prostration and severe gastro-enteritis, lasting four days, followed by symptoms of paralysis of limbs with severe paroxysmal pains, especially in the right limbs. Numbness of the fingers, sensation of cold, profuse sweating and insomnia. This was the condition when patient came under Dr. Gilbert's care on April 3, when she could only move slowly and with great difficulty. Complained of stiffness in legs and great weakness. Plantar and patellar reflexes were exaggerated; there was foot-clonus on right side; only moderate anæsthesia. This patient, who presented in a striking degree the effects of arsenical neuritis, entirely recovered. The author stated that in each of these cases the motor functions were more involved than the sensory.—(*Lancet*, July 16, 1892.)

B. M. CAPLES.

THE PATHOGENESIS OF EPILEPSY FROM SPINAL LESIONS.—Colella, Italian Freniatrical Soc., 1891. (Abst. *Archivia Italiano*.)—The objects of the author in initiating this investigation were: 1. To observe in what species of animals are produced epileptic convulsions from various lesions of the cord, and to study the mysterious relations that exist, in subjects become epileptic, between certain regions of the spinal cord and certain tracts of the skin of the face, or of the neck (epileptogenic zones). 2. To find out in animals, thus made experimentally epileptic, what follows the electrical irritation of the excitable zone of the cerebral cortex. 3. To inquire what phenomena follow the superficial, or rather deep decortication of the excitable zone of the cerebral cortex of the two sides in animals already affected with spinal epilepsy. From the experimental facts observed the author concludes: 1. In all the species of animals experimented upon (dogs, guinea-pigs, pigeons) various injuries of the spinal cord may be the cause of a very marked epileptiform disorder. 2. Only in man and in guinea-pigs is it possible to find special epileptogenic zones in certain regions of the face or neck, irritation of which gives rise to the epileptic convulsion. There exists, nevertheless, in the guinea pig a mysterious relation between certain parts of the spinal cord and this epileptogenic zone. 3. As regards the electrical irritation of the excitable tract of the cerebral cortex, the least stimulus capable of causing a movement applied in the same manner

to homonymous points of the two hemispheres, while it gave rise to motor reaction when they thus excited the centres of the greatest functional activity for the sound limbs, did not cause it when the stimulation was made of the cortical centres from which is derived the major part of the motor innervation of the paralyzed extremities. 4. The electrical stimulus of least intensity capable of causing a convulsive attack by exciting the cortical motor zone, corresponding to the injured half of the spinal cord, when applied in the same manner, and to homologous points of the excitable cortical region of the opposite hemisphere, appears to provoke irregular movements, which cease with the interruption of the stimulus. 5. Such electrical irritation of minimum intensity, sufficient to cause epileptic attacks in animals with spinal epilepsy, applied to identical parts of the excitable region of the cortex in healthy animals of the same species, causes, ordinarily, phenomena identical in nature. (The propositions 4 and 5 are hazarded with great reserve and some exceptions were found to them by the author in his experiments; account should be taken in this regard of the many causes of error arising, especially of cortical exhaustion consecutive to repeated excitations of the same motor regions, or to epileptic attacks). 6. Experiments made of rather deep decortication of the excitable region of the cerebral cortex of the two sides, as well as the similar ones undertaken on healthy animals, in which the spinal lesion was produced only after the removal of the excitable zone of the two cerebral hemispheres, are incomplete. No results, therefore, can be reported for the present: the motor zone of the cerebral cortex undoubtedly represents the central and necessary organ for the production of epileptiform convulsions, and thence all these should be referred to a common pathogenesis; but the presence, or the excitation of this cortex, may be only one of the conditions of the development of these epileptic attacks, in the sense of an influence that it may exert over the inferior nervous centres.

H. M. BANNISTER

CALORIC EPILEPSY.—Dr. Benedikt relates the case of a lad of fifteen, who, from one to several times daily, would have an elevation of temperature attended with loss of consciousness whenever 42.4 degrees to 43 degrees C. were reached. As the attack, which lasted from ten to thirty minutes, came on, the patient assumed a staring expression.

As soon as consciousness returned there was always complaint of contraction of the nuchal muscles, prostration and visual hallucinations. No cerebral symptoms during the intervals. Moderate splenic enlargement, slight albuminuria and increase of white blood corpuscles were found. After cautery points over the coronal suture, and sodium iodide, the fits gradually ceased. The author looks upon the case as one of microbic or ptomainic intoxication.—(*Brit. Med. Jour.*, May 14, 1892.)

B. M. CAPLES.

ALBUMINURIA AND EPILEPSY.—Drs. J. Voisin and A. Peron conclude (*Arch. de Neur.*, May, 1892) that albuminuria results in certain epileptics. It bears no relation to the type of the neurosis or to the frequency of attacks. Status epilepticus has been, in their experience, always accompanied by albuminuria. Albuminuria, while constant in the same subject, is fleeting and variable in quality. It shows itself especially in the first two hours after convulsive attack and appears to have a constant relation with facial congestion.

J. G. KIERNAN.

FRIEDREICH'S DISEASE IN AN EPILEPTIC IMBECILE.—Dr. Szczypiorski has observed (*Ann. de Medico-Psych.*, May-June, 1892) a case of Friedreich's disease in an epileptic imbecile. There was no record of ataxic heredity.

J. G. KIERNAN.

TASTE AND SMELL, according to Fere, (*Prog. Méd.*, Aug. 6, 1892) are deficient in 60 per cent of the epileptics. The bromides do not improve the patient in these particulars.

J. G. KIERNAN.

HYSTERIA IN INFANCY.—Chaumier believes that certain neurotic manifestations of young infants are hysterical in character. Convulsions in children have usually been regarded as manifestations of a special disorder, which may result from indigestion or may take the place of the chill or delirium in the adult. The author explains his somewhat novel theory by assuming that this is not always the fact. The apparent fits of passion without sufficient cause, accompanied by crying, he regards as the mildest form of this hysterical disorder. In other cases the child will stiffen the limbs, face will become turgid, and the body will be

seized with a distinct tremor. In a more serious form the child suddenly becomes quiet and seems for a moment to be unconscious. The mouth is open. The body usually becomes rigid. Occasionally there are no contractions and the body becomes relaxed and limp. These attacks are usually known as fainting spells, and are frequent in children who later develop decided hysterical symptoms. In older children undoubted hysterical manifestations are not uncommon. The child faints, or half loses consciousness, the limbs are often rigid, but may be relaxed, and the eyes are moved in a convulsive manner. Spasmodic movements sometimes occur which may be taken for actual convulsions.—(*New York Med. Jour.*, July 23, 1892.)

B. M. CAPLES.

HYSTERIC HYPERPYREXIA.—Dr. Vizioli has had under observation (*Rev. Intrt. de Biblio*, July 28, 1892) the case of an hysterically neurotic female who had, after several days of toothache, hyperpyrexia, which irregularly oscillated between 98.5° F. (morning) and 101.30° (evening) during one week. The patient had an attack of hysteric lethargy, whereupon the temperature, coincident with slow pulse and respiration, rose on the first day to 105.8° F., on the second, to 110.3° F., and on the third to 113° F., at which it continued until early in the third week when it suddenly fell to 93.2° F.

J. G. KIERNAN.

THE ASSOCIATION OF HYSTERICAL TREMBLING AND ANOREXIA NERVOSA.—Dr. Lloyd read a paper on this subject before the Amer. Neurological Ass'n, in which he reported the case of a young woman who was suffering with a peculiar rhythmic, constant tremor, which was, however, not paralysis agitans. The tremor occurred in waves of exacerbation and opisthotonic spasms every minute or so. The patient had hysterogenic zones, pressure over which caused the spasms; also the condition described by Gull as anorexia nervosa. By mistake a large dose of ordinary saltpetre had been given instead of sulphate of magnesia. While no harm had directly resulted from this error, the mental disturbance had been such that regurgitation of food had set in, and this had become the most pronounced complication in the case. Patient was found lying upon her side with cloths under her chin to catch the regurgitated material. Emaciated to the last degree. There was no atrophy,

but simply inanition. This condition was followed by true hysterical retention of urine, lasting sometimes for two days. After the patient had been removed to hospital, tremor greatly subsided and regurgitation of food entirely stopped.—(*Med. Record*, July 30, 1892.)

B. M. CAPLES.

ON TREMOR.—1. The observations made in my clinic during the past year corroborate the result of physiological investigation: that tremor is of cerebral origin. In fact, it can only be caused by a non-destructive lesion of the psychomotor substance or the cerebro-pyramidal tract. 2. As in chorea, if tremor involves both sides, it is a combination of two unilateral affections. It frequently occurs unilaterally at first, and the tremor of one side may show a difference in intensity or character from that of the other. Generally the tremor due to a general cause (nervous, hysterical or toxic tremor) is stronger on the left side. 3. Electric irritation, by the application of the electrodes to the head, produces a considerable modification [of the tremor in paralysis agitans. With the anode on the sternum and the kathode over the left Rolandic region, the oscillations of the right arm, which extended over 6 to 7 cm., extended 9 to 10 cm., with 5 m. a. of current, and in 10 minutes to 11 cm.; 5 minutes after removal of the current the tremor was less than usual. A similar result followed the reverse application of the current. 4. A diminution of the tremor (in the right arm) was produced by the application of an ice-bag to the left Rolandic region, which diminution was still noticeable 47 minutes after the ice-bag was removed. 5. The author has taken tracings of the tremor of a hand in 3 healthy individuals while the other hand was supporting a weight of from 2 to 5 kilogr. The tremor increased with the weight and also if the individual's mind was busied at the same time. 6. Of all the various remedies recommended for this symptom arsenic seems to be the most successful. This remedy is also useful in neurasthenic tremor.—(Prof. E. Renzi, Naples, *Wien. Med. Wochensch.*, No. 14, 1892.)

G. J. KAUMHEIMER.

A CASE OF HEMICHOREA FOLLOWED BY PARTIAL HEMIPLEGIA IN A CHILD FOUR YEARS OF AGE.—Piggott reports the following case which he thinks, in all probability, de-

pendent upon capillary embolism. Patient suffered more or less from convulsions during dentition. At completion of the fourth year was attacked with influenza, which was succeeded by marked choreic movements in the left upper extremity, facial muscles on left side being next affected. Disease assumed a decidedly progressive character and ultimately reached left lower extremity. Often present during sleep. Hypophosphites, liquor arsenicalis and cod-liver oil were prescribed. Marked improvement, which was of brief duration. Decided evidence of hemiplegia soon manifested itself; paralysis of the left facial muscles, partial ptosis and considerable photophobia, with loss of power in the left arm. Later, conjunctiva of the left eye totally insensitive. Diminished sensibility in right conjunctiva; marked trismus, jaws being firmly closed. Tonic contraction of the extensor muscles of the left arm, forearm and both legs, left being most complete. Symptoms gradually increased. Patient passed into a state of profound coma. Post-mortem examination not permissible. Author thinks the tendency to brain mischief existed, owing to convulsions attendant upon dentition.—(*Lancet*, April 23, 1892.)

B. M. CAPLES.

CHOREA.—Dale has arrived at the following conclusions: 1. Although chorea is best defined as a functional disease it cannot be called a symptom. 2. From the phenomena of hemichorea and its relation to hemiplegia, we may assume that the seat of the lesion is in the sensori-motor ganglia at base of brain. 3. The disease frequently occurs after acute or sub-acute rheumatism, but many cases have no connection with rheumatism in any form. 4. The cases of chorea in which cardiac murmurs are found have for the most part been preceded by rheumatism, but this is not invariably true. 5. Some children are strongly susceptible in certain nerve centres, which are easily influenced by physical causes, and in these children chorea is very often developed. 6. In the great majority of cases complete recovery may be expected. In treatment the author relies chiefly upon diet, a cold shower bath, iron and arsenic.—(*New York Med. Jour.*, July 23, 1892.)

B. M. CAPLES.

THE VERTIGO OF ARTERIO-SCLEROSIS.—Dr. Archibald Church says that it is only of late years that arterial changes have been given importance in pathology and

in clinical medicine. The degeneration of senility, the modifications found in gout, rheumatism, chronic metallic poison, syphilis, and which are associated with alcoholism and Bright's disease, make it imperative that we recognize at the earliest possible moment any change in the arteries which may in early stages be amenable to treatment. Here we have to deal with a pre-atheromatous condition. We extract the following from the author's article: "When a man, past the prime of life, without any previous serious illness becomes suddenly faint, has a swimming in the head, a feeling of giddiness, of distinct gyration, of darkness and impending death, one or several of these sensations, he usually at once seeks advice in grave apprehension, sometimes well founded, of approaching cerebral apoplexy, and usually gets a cholagogue cathartic, or is told that his stomach is wrong, and sometimes is told rightly. But cases are constantly presenting themselves in which such vertiginous attacks are happening at shortening intervals; the patient gives up his tobacco, his spirits, if he is a drinker; cuts down his meat, takes to some of the many waters recommended; has Turkish baths, and gains only moderate relief or none at all. If he is carefully examined he will probably present a well-defined tortuous frontal artery, a distinct arcus senilis, a strong, even a clanging second sound of the heart, sometimes reduplicated, and gives a sphygmogram indicative of increased arterial tension. The pulse may be abnormally slow or arhythmic, the urine scant, and a trace of albumen is not rare. He finds that exertion of a moderate amount precipitates the attack, that he cannot endure a temperature at all above the usual, and often a change of position from recumbency to the upright is the occasion of a "blurr" or of giddiness. The attack itself is, as already indicated, widely variable in different patients, but is usually consistent with itself for the given individual. A fullness and throbbing in the head, a feeling of heat in the scalp and a blurr before the eyes are usually mentioned, and at such times marked paleness is noticed, followed, as a rule, by considerable redness of the face. There is a tendency to get into the open air and badly ventilated or close apartments are unendurable. An habitual smoker will sometimes find tobacco-smoke repugnant. In more severe forms the patient may stagger, or gradually sink to the ground; he cannot speak for a few seconds though consciousness is rarely completely lost.

The recumbent position is usually sought or the patient clings to some object, and after a period of from five to twenty minutes the feeling passes away, leaving him rather languid, with an inclination to sleep and usually mentally depressed and apprehensive. At first he attributes the attack to anything and everything that in his estimation can cause a departure from health, and usually establishes a close watch upon his diet, habits and mode of life, is inclined to avoid exercise or exertion of any sort, fearing to precipitate an attack, or to go by himself on the streets, and, in short, becomes an invalid with hypochondriacal tendencies. The diagnosis is often one of extreme difficulty in spite of the hasty contrary statement by a recent American writer, and I have known the symptomatic vertigo confused with Menier's disease by a very competent specialist in nervous diseases; for it may, as in that particular instance, be of a systemized character, that is to say, marked by a sensation of falling in a given direction or of being rotated in a constant manner to the right or left, and even associated with a suggestive stagger. If to this a little middle ear catarrh is added, a diagnosis of aural vertigo might easily be reached, but a closer and somewhat wider examination will detect the integrity of the auditory nerve and the presence of the arterial fibrosis with the underlying predisposition of alcoholic excess, syphilis, gout, rheumatism, chronic lead infection, or other constitutional state of etiological significance."—(*Chicago Med. Recorder*, July, 1892.)

AFEBRILE TYPHOID WITH SEVERE CEREBRAL SYMPTOMS.—A girl, aged 9, was taken sick with headache, chill and fever Nov. 15, and a few days later had to remain in bed. She soon became so noisy and restless that she was transferred to the hospital Nov. 26. On admission she was comatose, but screamed and tossed about incessantly. The slightest touch called forth screams. Pupils were widely dilated and reacted very slowly. P. 180, T. 36.5° C. The stools, to the number of 3 to 4 daily, were passed into the bed. Meningitis was suspected. The temperature never rose above 39° C., which was observed twice in the morning hours. The treatment consisted of the ice-cap and of small doses of chloral at night. On the 17th day of the disease she became more quiet so that an examination was possible. This showed a swollen spleen. From this time on a gradual improvement took place. On the 25th day the

child became conscious. From the 20th to the 30th day numerous furuncles developed all over the body. Convalescence was interrupted by a rubeolous eruption without fever, but otherwise progressed favorably. The diagnosis was surrounded by a great deal of difficulty, but the history, as well as other details, at last determined the diagnosis. These cases, while quite rare, are also marked by a very large mortality. Fraentzel and Strube have reported similar cases. The great depression of temperature (in this case as low as 36° C.) is attributed by Liebermeister to the action of the virus on the heat-regulating centres. In his large experience the latter has seen but ten such cases.—(Dr. Sigmund v. Gerlőczy, *Deutsche Med. Wochensch.*, No. 15, 1892.)

G. J. KAUMHEIMER.

ENTERIC FEVER; RIGHT HEMIPLEGIA WITH APHASIA; RELAPSE; DEATH.—Dr. Donkin places this case on record on account of the exceptional occurrence of hemiplegia with enteric fever. Patient had usual symptoms of enteric fever, except that bowels had not moved for several days; an enema was ordered, and at 6:00 p. m. when nurse was about to administer it, found patient with much impaired consciousness and unable to articulate. Examination showed drooping of left eye-lid and considerable paralysis of right arm and leg. Swallowing difficult: urine passed involuntarily. During next few days paralysis became complete and there was considerable loss of sensibility in affected limbs. Breathing somewhat labored. Temperature rose to 105; patient died. Necropsy showed the brain substance pallid and sulci deep. Left carotid was distended with a softish, dark clot which extended to its principal branches, the middle cerebral being apparently most affected; clot was confined to Sylvian fissure. The supply area of the middle cerebral was extremely disorganized, the softened parts being the left corpus striatum, island of Reil, the operculum, the anterior fourth of upper temporo-sphenoidal convolution, and wall of the lateral ventricle in more than its front third. Corpus striatum was of a greenish-yellow hue, and only kept in position by its attachment posteriorly to optic thalamus. Elsewhere surrounding nerve tissue was broken down flocculent detritus. This disorganization affected whole of anterior cornu and wall of ventricle as far back as front of optic thalamus, latter somewhat softer than normal, and chiefly

affected in its outer front part. Rest of the cerebrum, cerebellar pons and medulla were, except that the puncta vasculosa were large, not noteworthy. Vessels of pia mater normal to the naked eye.—(*Lancet*, April 23, 1892.)

B. M. CAPLES.

PATHOLOGY OF ADDISON'S DISEASE.—Fleiner reports two cases of Addison's disease with autopsies, and comes to the conclusion that the pathology consists in a chronic inflammation arising in the suprarenals and extending to the sympathetic system. This was most fully developed in the semilunar, less so in the dorsal and cervical ganglia. He found an increase in the connective tissue of the ganglia, with atrophy of the nerve cells and an extensive degeneration of the splanchnic and sympathetic nerves. Lesions of the spinal cord were present, but the author does not know whether they were accidental or due to extension of inflammation along the sympathetic fibers through the posterior nerve roots.—*Deutsche Zeitschrift für Nervenheilkunde*, May, 1892.)

JOS. KAHN.

SYPHILITIC HEMIPARAPLEGIA.—Dr. Armstrong has an article in the *Med. Record* of July 9, with the above title. He cites the case of a man, aged forty-one, seaman by occupation, who came under his observation in June, 1888, suffering with pain in his hips, knees and feet, that had existed for two weeks. Two and one half years before admission had had a chancre that was followed by a papular eruption for which he had been insufficiently treated. Placed on suitable treatment and discharged in July, free from pain. Was readmitted in Jan., 1889. Suffered with pains in the shoulders, arms, back and chest. Had an indurated ulcer on side of tongue that had been present for some time. Incontinence of urine for two weeks. Was at once placed upon iodide of potash treatment. On Feb. 4 there was a sudden paralysis of the right lower extremity. The dynamometer showed a compression force of 35 kilogrammes in right hand; 30.75 kilogrammes in left. Æsthesiometer showed normal tactile sensation on the anterior surface of the body until the thighs were reached. On the left thigh sensation was diminished from inguinal region until in its lower portion, and in leg there was a complete loss of sensibility. On anterior surface of right thigh and leg slight diminution of

sensibility. Posteriorly same results were obtained, excepting that anæsthesia commenced at the left nates. Diminution of thermal sense in left extremity. Incontinence of urine and fæces. The symptoms indicated a lesion of the cord in region of the last thoracic or first lumbar vertebræ. Daily increasing doses of iodide of potash were given; later, limited to 60 grains a day with the addition of syrup iodide of iron, as patient was quite anæmic. Patient improved. Feb. 4 could walk alone. March 24 patient was discharged. Able to be on his feet all day and general condition very good. He went to sea, was away several months and unable to continue the specific treatment. Returned to hospital with well-marked symptoms of posterior spinal sclerosis. The author thinks the probability of relapse in such cases is very great, especially as either the blood vessels or meninges may be affected in other localities and await a suitable time to indicate existence of pathological process that is going on. The necessity of specific treatment is apparent. In all cases of syphilis affecting the nervous system every precaution in therapeutics and hygiene should be observed.—(*Med. Record*, July 9.)

B. M. CAPLES.

CHRONIC HYDROCEPHALUS AND HEREDITARY SYPHILIS.—Dr. Jul. Heller attended at the birth of a child which, at that time, was apparently healthy. At the age of four weeks it became necessary to supply a wet nurse, as rapid emaciation occurred. The child improved for a while, when enteritis set in and resisted all treatment. At the seventh week a number of pigmented scaling macules were found on the soles, palms and extremities. Under sublimate baths and calomel the child became perfectly well in four weeks. He next saw the child at the age of six months. The head was then very large, with tortuous veins running over the scalp and with widely gaping fontanelles. All measurements were from 2 to 3 cm. larger than those given as normal in text books. The organic functions were normal, the special senses were dulled, but not abolished. No signs of rickets could be discovered. Iodide of potassium in small doses, with tonics, was given for four months. At this time a great change had taken place. The venous plexuses in the scalp had disappeared, the hair began to grow, the fontanelles had almost closed, the bones of the cranium had become much firmer, and the face had almost caught up to the head in growth. The

further development of the child took place slowly, but in a normal manner. No sign of syphilis could be detected in the mother or nurse. Infection after birth can be excluded. The atrophy was probably due to a luetic enteritis, and the eruption appeared only two weeks after the employment of the nurse. The father could not be examined. The authorities on diseases of children either ignore or deny the relationship of the two diseases. Ziegler and Eichhorst, however, admit its possibility, while Véronèse and Fournier believe them to be associated quite often. Heller gives abstracts of ten cases which he has found recorded, although in only one, specific treatment was of any avail. He points out that the presence or absence of a specific taint should be carefully sought for in all cases of chronic hydrocephalus in infants.—(*Deutsche Med. Wochensch.*, No. 26, 1892.)

G. J. KAUMHEIMER.

PACHYMEINGITIS TUBERCULOSA CIRCUMSCRIPTA.—While secondary infection of the dura mater from tuberculous foci in the cranial bones and vertebral column is by no means uncommon, primary tuberculosis of this membrane is so rare that Gussenbauer has seen only the case which he now reports. C. W., aet. 21, was struck by a falling piece of wood upon the left parietal bone. The blow was not followed by an extravasation or pain, and he was not interrupted in his work. Four weeks after he felt severe darting pains in the *right* side of the head, followed by chills and a rise of temperature. Several weeks later diplopia, insomnia and pains in the nucha were complained of. A gland at the back of the neck became hard and painful. Some 7 to 8 weeks after the blow a soft swelling appeared at the site of the injury, which very slowly increased to the size of a hen's egg. The chills became more frequent and violent and the swelling became hot and painful. The pains in head and neck, diplopia and insomnia receded as the swelling increased. Four months after the injury, the swelling was incised and pus mingled with shreds of necrotic tissue evacuated. The chills then became milder and less frequent, although a fistula remained. In October (he was injured in January) examination showed some dullness over the apex of the right lung. A fistula was found in a cicatrix, 10 cm. from the tip of the mastoid process, the same distance from the meatus and 9 cm. from the sagittal line. Palpation

showed a hole in the cranial vault with a radius of 1 cm. from the fistula. The edges of the defect were sharply cut. The pericranium and scalp were not thickened or tender. Pulsation could be felt and seen. There were no brain symptoms. The absence of all symptoms for four weeks following the traumatism led Gussenbauer to reject the diagnosis of a direct injury. The whole slow course of the trouble, together with the watery pus discharged from the fistula and the tubercular habitus of the patient, tended to a diagnosis of tuberculosis. An incision crossing the fistula revealed a pulsating mass of granulations. The edges of the bony defect were as thin as a card, the diploë and internal table being absent. In order to expose the entire mass the bone was nibbled away with bone forceps. As its periphery was reached, the diploë and internal table reappeared. When the limits of the new formation were reached, the hole in the skull measured 9.5 cm. from its anterior inferior to its posterior superior angle, and 7 cm. antero-posteriorly. A mass of fungus granulations was found lying upon the dura, gradually fading into healthy tissue at its periphery. With the sharp spoon the entire mass was removed, the external fibrous lamella of the dura coming away with it. After disinfection and suture recovery was prompt and uninterrupted. Microscopic examination showed the presence of miliary tubercles containing giant cells. No attempt was made to close the bony defect on account of the liability to relapse. G., however, intends to attempt a secondary osteoplastic closure if no local relapse or development of tubercle in other organs occurs. At present he wears a hard rubber plate.—(*Prag. Med. Wochenschr.*, No. 9, 1892.)

G. J. KAUMHEIMER.

A STUDY OF NEUROTIC ECZEMA IN ADULTS, by Dr. Barham. The author thinks that neurotic eczema is in itself a variety, as evinced by its location upon the extensor surfaces, by the arrangement of its lesions, and by the course of the disease, its condition varying under circumstances which are certainly not local. He here discusses a few typical cases in which he says the superior lesion may be destroyed. The separate lesions may be described as patches composed of closely aggregated papules or vesicles, or both. In places the edges of the patches have coalesced, forming large areas of diseased skin with here and there an island of healthy tissue. In some lesions there is no scaling nor

weeping, the vesicles not being ruptured. Eruption on the legs presents the same appearance and general characteristics as on the arms. Among the disorders producing this condition, the most common, and presumably the one having most bearing on the disorder under discussion, is a general weakness of the nervous system. This the author noted in the history of every case except one, and in this, patient suffered from a disease generally acknowledged to be nervous in its origin. In most cases the eruption was preceded by a period of mental suffering. Whether the mental suffering was occasioned by prolonged sickness, trouble, anxiety or privation, the result was the same, neurasthenia. Among the functional disorders constipation, often obstinate and of long standing, is the most common. Other causes are disorders of the reproductive organs, and sickness involving great strain upon the nervous system, as the grippe, and exposure to extremes of temperature. Author thinks the evidence is against the direct action upon the skin of retained products of excretion, such as uric acid, etc., although he states that eczema may be present in rheumatic and gouty subjects, but the appearance and course of the disease is different from that under discussion. That a vaso-motor disturbance is, in a great measure, responsible for the eruptions is, he believes, supported by the following features in the clinical history of the eruption: 1. The symmetrical location of the lesion. 2. The sharply defined margin of the affected area, which, in connection with the above feature points to a nerve influence in its distribution. 3. The location of its lesions on extensor surfaces of extremities and on the face, this being the location chosen by erythema multiforme, rosacea, etc., which are admittedly of reflex nervous origin. 4. In a few cases the distribution can be shown to be confined to surfaces supplied by certain groups of nerves where the distribution was sharply limited. The spread of the eruption is never by a gradual extension of the areas of the separate patches, but by the formation of new lesions, in every respect retaining the true characteristics of the older ones. The eruption has a tendency to frequent relapses, for which often no immediate cause can be ascertained. The treatment should be both internal and local. Internal treatment should be directed first toward correcting any functional disorder present. The nervous system should be relieved as far as possible from

any mental worries, business cares, etc. Any existing digestive trouble must be corrected. Any disorder of the reproductive organs that may be present must be corrected. In those cases where the congestion is marked, ergot gives good results applied locally in the form of an ointment.—(*Med. Record*, July 9, 1892.)

B. M. CAPLES.

PATHOLOGICAL ANATOMY OF LEPRA ANÆSTHETICA.—Carl Looft, in Virchow's Archiv, reported two cases, with autopsies, in which he found marked changes in the posterior columns of the spinal cord. In the first case the cervical portion was most affected; in the second, the lumbar portion showed marked changes, while the cervical was not examined. In both cases the posterior nerve roots were much atrophied, and the ganglia of the spinal nerves presented much fibroid degeneration with absence of medullated nerve fibers and changes in the nerve cells. Chronic neuritis was found in the nerve trunks that were examined. The anterior horns of the gray matter and the anterior nerve roots were normal, and the posterior horns showed merely a suspicion of degeneration. The changes were much like those found in ergot poisoning. The author believes that the primary lesions are those of the posterior nerve roots and the ganglia of the spinal nerves. It is difficult to determine how much the symptoms are caused by the peripheral and how much by the central lesions. The paralysis is probably due to the peripheral neuritis, for the anterior horns of the gray matter and the anterior nerve roots are normal.—(*Kronthal. Neurolog. Centralblatt*, No. 14, 1892.)

JOS. KAHN.

TETANUS OF THE HEAD.—(*Nerlich. Archiv für Psgchiatric*, Vol. 13, No. 3.)—Prof. Edw. Rose, in a monograph on tetanus, describes a peculiar form of the disease characterized by paralysis of the facial nerve and great reflex excitability of the muscles of the pharynx and larynx, which he calls tetanus of the head, or tetanus hydrophobicus. Nerlich reviews the literature of the subject and reports a case of his own. He finds that the disease is due to injury in the region of the cranial nerves and that the first symptoms may occur either before or after the wound is healed. The time of onset varies from twenty-four hours to twenty-four days and averages about eight or nine days. In fatal cases

the paralysis persists until death. Where recovery takes place the paralysis usually ceases with the tonic convulsions; only in one case did it persist longer. The paralysis is generally found on the injured side. At the onset of the disease the clonic spasm of the masseter muscle is present only on the injured side, but soon the opposite side is also affected. The muscles of the pharynx and larynx are reflexly affected, and this was considered the characteristic symptom of the disease by Edmund Rose.

JOS. KAHN.

TETANUS DUE TO PUNCTURE OF A HYPODERMIC NEEDLE.—Osborne reports case of a man, twenty-four years of age, who consulted him complaining of slight pain in limbs, head and back, and a feeling of general malaise. Temperature and pulse normal; slight stiffness in muscles of the neck. Next morning increased stiffness about neck and also lower jaw and abdomen; difficulty in protruding tongue and slight "risus sardonicus." Temperature, 98.6; pulse, 104. Patient denied the existence of a wound or sore anywhere. Was ordered full doses of chloral hydrate and morphine. Toward evening all symptoms more developed. Two days later tetanic convulsions very frequent and there was marked opisthotonos. Day following, temperature, 99.3; pulse, 112. Author found small suppurating sore near right shoulder. Patient admitted that this was due to puncture of a hypodermic needle and that he was in the habit of injecting morphine hypodermically. Wound was inflamed and suppurating and about the size of a three-penny piece. The author thinks that this should impress the necessity of the most scrupulous cleanliness in the performance of even this small operation. Patient died.—(*Brit. Med. Jour.*, July 9, 1892.)

B. M. CAPLES.

INTERMITTENT HYSTERICAL (?) PARALYSIS.—Dr. L. Bremer publishes the case of a boy, 16 years of age, who, apparently, had intermittent hysterical paralysis with hystero-epileptic convulsions. Boy had had a fall at five years of age which resulted in a bad bruise on the right side of the skull, but no fracture. Several times he had had sudden attacks of paralysis of the left leg which lasted from a few minutes to several days, followed by recovery. Later had an attack of paralysis of this leg with the hystero-epileptic convulsions following. This time complete paralysis and anæsthesia all

over the body. He was deaf in both ears and blind in the left eye. Excepting the right eye-lid every muscle of the face was paralyzed. Though he could not speak he was apparently conscious and observed everything that was going on about him. In addition to symptoms described Dr. Bremer found on examination that there was a complete loss of muscle-sense; there were also anæsthesia and loss of pain-sense. Visual field contracted; color-sense normal. No involvement of sphincters. The patient was secluded from relatives, cold douches applied to the thighs and abdomen, and electricity used. There being no benefit after a week's treatment arrangements were made to try hypnotism, and the patient was informed that he would be put to sleep by mysterious means and a cure would probably be effected. When entering the room to hypnotize him the patient stated that motion and sensation had returned. On examination sensation seemed perfect, but motor weakness was so great that patient could not walk, though he could lift legs freely. This improvement, however, did not continue and the patient relapsed. Later, patient would become drowsy and pass into a profound sleep from which nothing could arouse him. At times these attacks were accompanied with opisthotonos or emprosthotonos. After having one of those attacks he would sometimes destroy the bed clothes and everything he could get hold of. During the attacks respiration and pulse were very much depressed. Once, during profound coma, his pulse was 20 and the respiration 1 per minute. At times the pulse would be 108 and then immediately drop to 30 or 20. Temperature from 100 to 104.5. Patient left the hospital and went to his home, and about one month later suddenly completely recovered. The doctor makes some interesting comments upon the subject of hysteria in general. — (*Alienist and Neurologist*, Apr., 1892.)

THERAPEUTICS.

CASE OF TRAUMATIC TETANUS TREATED BY THE TIZZONI-CATTANI ANTITOXIN.—A case of pronounced tetanus to which treatment by the tetanus antitoxin was successfully applied is reported by G. Casali. Patient, a woman, aged twenty-two, developed symptoms of the disease eight days after receiving an injury to her foot. The wound had quickly

become inflamed and inguinal glands were enlarged and painful. Progress of symptoms fairly rapid and when received into hospital fourteen days after injury jaws were tightly closed; speech was indistinct, slow and painful. There was marked "risus sardonicus", muscles of the neck and back were stiff and there was also some spasm of injured limb. Tizzoni confirmed the diagnosis and cauterized wound with silver nitrate, recommending daily application thereto of the caustic in one per cent. solution. He also arranged that patient should receive two injections daily of 25 centigrammes of antitoxin, (prepared from the serum of an immunized dog) and ordered her to be kept well covered so as to favor sweating. After first injection sweating was very profuse—as it was indeed after each of the first five injections. By evening the stiffness of the neck and tongue was markedly diminished. Five injections were given in like manner with similar results, spasm gradually yielding and condition becoming steadily better. At this time there appeared a rise of temperature with a temporary recurrence of facial pain, but the tetanus proper had practically disappeared. Quinine and stimulants were then administered and a sixth and last injection of only 15 centigrammes of antitoxin was made. This produced no sweating and the patient, though cured of the tetanus, showed great restlessness and a slight vesicular rash appeared on chest and back. These untoward symptoms, due, it was thought, to septic absorption from the wound, cleared up under ordinary treatment and patient was shortly discharged with injured limb quite healed and no signs remaining of her illness save great weakness of limbs. Bacteriological examination of wound had revealed the presence in it of the tetanus bacillus, of streptococcus septicus and of a spore-bearing earth bacillus. It was to these latter organisms that the slight septic symptoms were attributed.—*Brit. Med. Jour.*, July 9, 1892.

B. M. CAPLES.

IODINE INJECTIONS IN TETANUS.—Dr. Sattas (*Gaz. des Hop.*, Aug. 11, 1892) reports a case of tetanus successfully treated by iodine injections given hypodermically in ten centigram doses. These were without pain or untoward effects.

J. G. KIERNAN.

DUBOISIN IN HYSTERO-EPILEPSY.—Dr. Samueli reports the case of a girl of 20, who had as many as 23 attacks of 10 to

12 minutes duration daily. The first sign was a closure of the eyes, followed by rapid breathing, a mimetic facial spasm and clonic spasm of the right arm and leg. The pulse was slowed, indicating irritation of the vagus. Consciousness was totally abolished. During the acme of a paroxysm Samuelli injected 0.002 gm. duboisin sulphate. No further fits occurred.—(*Wien. Med. Wochenschr.*, No. 14, 1892.)

G. J. KAUMHEIMER.

UNTOWARD EFFECTS OF PILOCARPINE IN EPILEPSY.—Dr. Féré states (*Mercredi Méd.*, May 18, 1892) that the use of pilocarpine in epileptics whose attacks are under control may provoke an aggravated return of these.

J. G. KIERNAN.

PREVENTION OF BROMISM BY INTESTINAL ANTISEPSIS.—Ch. Féré (*Nouv. Iconogr. de la Salpêtrière*, III) points out that small or moderate doses of the bromides are generally useless in the treatment of epilepsy, and that daily doses of 10 to 14 gm. are frequently needed. The phenomena of bromism, which are of frequent occurrence during the administration of such doses, can be prevented, according to Féré, by intestinal antiseptics. Naphthol in daily doses of 4 gm., or salicylate of bismuth (2 gm. per day) are the most efficient and may be taken for a long time without detriment.—(*Berl. Klin. Wochenschr.*, No. 12, 1892.)

G. J. KAUMHEIMER.

METALOTHERAPY IN HYSTERIA.—Dr. Moricourt reports (*Gaz. des Hôp.*, April 2, 1892) a case of hysteria major with paraplegia, nervous crises, hallucinatory phenomena and obstinate vomiting, cured by the local application of gold. The patient was hypnotized. Copper, steel, lead, aluminum, gold and other metals were applied to regions anæsthetic in the waking state. Gold caused the most marked hyperæsthesia, whence its application. Moricourt calls attention to the intensity and complexity of the hysterical symptoms. Some of these had been present from birth. The gravest (vomiting, paraplegia, etc.) had appeared after her father's death. In childhood, convulsions followed by slight lingual paralysis and abundant epistaxis had occurred. Later there had appeared nervous crises, neuralgia, cardialgia and gastralgia, as well as great sensibility to storms and hypochondriasis. There were also migraine, eye dis-

orders and tinnitus aurium, followed by anorexia, dyspepsia, pneumatoses, obstipation and vomiting. The patient was alternately amenorrhœic and menorrhagic. Oppression, laryngeal spasms, nervous coughs and choreic movements from time to time occurred. There were alternate insomnia, lethargy, and prolonged slumbers with agreeable, but exhausting, and disagreeable dreams. There were quickness of temper, irritability and alternate fits of causeless laughter and tears. There was mental disorder with the usual hysteric hallucinations and somnambulism. There was incomplete paraplegia preventing walking but permitting movements of the limb in bed. There was absolute anæsthesia of the skin. The patient could not endure any odor but hyacinth, which put her to sleep. There were quotidian attacks of "hysteric fever" followed by convulsive phenomena, achromatopsia and verbal amnesia. Until gold was tried all treatment had proven useless.

J. G. KIERNAN.

EXALGINE IN CHOREA.—Dr. Dana has an article in the *Jour. of Nervous and Mental Diseases* for July, in which he gives an account of his use of exalgine in sixteen cases of chorea. He believes that it has an unquestionably specific action in ordinary Sydenham's chorea. It is not indicated in chronic chorea, habit chorea, chorea major or convulsive tic. The dose used was two grains in capsules, three times first day, four times second, and five times third day, and finally three grains five times daily if necessary. At the same time he administered the citrate of iron and quinine. The effect of the drug should be watched carefully as it may cause muscular prostration, acute anæmia and cyanosis. In one of these cases the duration of the disease was seventeen days. In one other he had an almost equally rapid cure. In two, the trouble lasted but two weeks, and in one, four weeks. The average duration under the treatment was five weeks. Many of the cases had been under arsenical treatment without any result until the exalgine and iron were given.

B. M. CAPLES.

SOLANINE IN GASTRALGIA is, according to Dr. Desnos, (*Bull. gen de Therap.*, June 30, 1892) of benefit in five to ten centigram doses daily.

J. G. KIERNAN.

THYMACETINE.—Jolly (*Berl. Klin. Wochenschr.*, No. 14, 1892) reports on trials made in the nervous and psychiatric

clinic at Berlin with thymacetin, a derivative of thymol, analogous to phenacetine. It is a white, crystalline powder, slightly soluble in water. Doses of 2 gm. were not poisonous to dogs. Its antithermic action was not investigated. The doses given ranged from 0.2 gm. to 1 gm. In 7 cases of hemicrania the pain was moderated, although the incidental effects were such that the patients declined to take the drug again. In a number of cases of habitual headache and neuralgic pains the action was similar to that of phenacetine, rapid and certain in some cases, slight or absent in others. In headache due to organic brain lesion no relief was reported by one patient; decided relief repeatedly by another. In a tabetic with severe gastric crises, who also received morphine, transient relief was obtained, although the morphine could not be abandoned. In morphinists with pains in the extremities during the period of withdrawal, the remedy was useless. A number of the patients complained of a rush of blood to the head soon after taking the remedy. In these cases a moderate acceleration of the pulse was observed. Several male patients complained of various disagreeable sensations in the urethra, although the urine was normal. Several patients after taking 0.5 gm. became so sleepy as to sleep soundly several hours during the day. This led to a trial of its powers as a hypnotic if given at night in doses of 0.5 to 1 gm. 26 patients, partly delirious, partly noisy paretics, received it. In 10 cases no result was observed. In the remainder a fair amount of sleep was obtained and in a few, sound sleep. The slumber was not as deep as that which follows chloral in doses of 2 gm.

G. J. KAUMHEIMER.

ON SALIPYRIN.—Reports on the therapeutic value of this combination of antipyrin and salicylic acid are conflicting. Argo *Therap.* (*Monatsh.*, No. 5, 1892, *Wien. Med. Blaett.*, No. 22, 1892) reports almost invariable success in asylum practice. He gave it in doses of 1 gm., 3 times daily. In several cases of severe hemicrania complete relief was obtained in from 10 to 15 minutes. Similar results were observed in post-alcoholic headache, in which antipyrin had been useless. In one case a distinct hypnotic effect was observed after a dose of 1 gm. Several cases of chronic rheumatism were relieved at once. It is best given dry upon the tongue followed by a glass of water. Per contra, Hitchmann (*Wien. Med. Blaett.* No. 17, 1892) has seen no such marvelous re-

sults. As an anti-rheumatic it is no better than the soda salt of salicylic acid. Its most marked action, according to H., is as an antineuralgic. In 2 cases of chronic myelitis with lancinating pains, complete relief was obtained by daily doses of 0.5 gm. each. In 2 others, a numbness took place of the pain. Habituation occurred on the ninth day so that the dose had to be increased. In quite a number of other painful affections, such as lumbago, headaches, and neuralgias, relief was obtained by doses of 3 to 6 gm. per day. Large doses are likely to produce headache, nausea and heartburn. Sweating was often exhausting and profuse. He concludes that "salipyrin is an innocuous remedy, useful in many cases, but, on the whole, very unreliable."

G. J. KAUMHEIMER.

CHLORALAMID; ITS ACTION BASED UPON A STUDY OF 280 CASES.—By Dr. James Wood.—In ordinary cases the doctor states that this remedy stimulates the respiratory centre, the blood pressure remaining uninfluenced. It is especially useful in insomnia with the high arterial tension of Bright's disease. Its stimulating effect upon respiration would indicate its use in the night-sweats of phthisis. We quote the following from the doctor's article: "When the drug is given for its hypnotic effect its physiological action is noticed in from thirty to ninety minutes, and the sleep induced lasts from five to nine hours, is natural and refreshing and not followed by any unpleasant sequelæ. No symptoms of cerebral congestion or any unpleasant sensation in the head or other parts of the body are experienced. No evil effects followed the continued use of the drug for ten days, and during this time it was not necessary to increase the dose, nor was its hypnotic effect diminished. Any psychological influences can therefore be eliminated. There is no cumulative action of the drug, nor are there any cases on record where a habit has been formed. The best time for administering the drug is just before retiring. It can be given in capsule, dry on the tongue, as an enema, or preferably in solution. As palatable a combination as one could wish is the following, which will be found useful in private practice. It is a pleasant mixture with a slightly acid taste:

R Chloralamid.....	3ij
Tr. Cardamom. Co.	3i
Misce bene et adde	
Syr. Aurantii.....	
Syr. Rubi. Idæi.....	aa ʒss
M. et Sq.: From One-half (½) to one tablespoonful repeated.	

The dose which yields the best result is from thirty to forty-five grains. Not more than one hundred grains should be given in twenty-four hours. The conclusions, based upon its use in two hundred and eighty cases, are briefly as follows: That it is a most useful hypnotic, reliable, safe and pleasant. That it has a place as an anhidrotic in phthisis. That it is superior to other drugs because in hypnotic doses it stimulates respiration, and but slightly, if at all, influences pulse, temperature, or urinary secretion. That no collateral symptoms of any consequence exist. That the best hypnotic dose for an adult is forty grains. That it is given preferably in an alcoholic solution just before retiring.”—(*Brooklyn Med. Jour.*, Apr., 1892.)

(In a case in the Milwaukee Sanitarium where other hypnotics failed, ten-grain doses of chloralamid produced a sound and refreshing sleep. In this case sulphonal produced irritation of the stomach and bowels, and was also followed by depression and irritability. Chloralamid had no such effects.)

CHLORALAMID IN INSOMNIA.—Dr. Collins concludes an article on chloralamid as follows: “Without entering into details in respect to each case treated, it seems that the following conclusions can be drawn: 1. Chloralamid is a safe and one of the most reliable hypnotics. 2. It is not ordinarily followed by distressing after-symptoms, particularly headache. 3. It is especially valuable as an hypnotic where pain is a prominent factor, but not violent. 4. In cases of insomnia where there is excessive activity of the brain it is also useful. 5. On account of its stimulating activity upon the respiratory function it is the hypnotic *par excellence* in nervous exhaustion associated with an asthenic condition of respiration and symptom complex indirectly dependent upon this, brought about by defective oxidation and the formation of unstable chemical compounds in the system. 6. On account of its very slight action in depressing the circulation it can be given in diseases associated with a weak heart with greater safety than most of the other hypnotics, not excepting chloral itself. 7. It is conveniently administered in the shape of an elixir, and this overcomes the need of dissolving it. 8. Its dose is from one to three scruples, administered one hour before sleep is desired, and this should not be repeated within two

hours, for occasionally the action of the drug is delayed.”—(*Jour. of Nervous and Mental Diseases*, July, 1892.)

PIPERAZINE: URIC ACID SOLVENT.—A recent communication on piperazine, by Dr. Biesenthal in the Berlin *Klinische Wochenschrift*, contains a very favorable report on this remedy, from which the following information is gleaned. The non-corrosive and non-poisonous action of the strong base is remarked, and confirmatory evidence given, not only of the extraordinary solvent action of piperazine on uric acid, but also of its capability of dissolving the organic cementing substances that bind the uric acid concretions together. On internal administration piperazine, which is not decomposed in the human system, first saturates the uric acid still dissolved in the organism, and the remainder, dissolved in the alkaline blood, attacks any deposits of uric acid, dissolving both acid and cement, and carrying the former out of the system in the form of the easily soluble neutral urate of piperazine. As a result of the solvent action of piperazine upon the organic cementing material of concretions, it has occurred many times in the experience of Dr. Biesenthal that concretions composed almost entirely of calcium phosphate and uric acid were disintegrated by this remedy. The piperazine dissolved the combining material that held together the particles of calcium salt and consequently loosened the whole mass so that the concretion became friable and readily broken up. On account of this property of piperazine, attacking and disintegrating concretions composed largely of phosphate of lime, it is further a special advantage that the base does not communicate an alkaline character to the urine, as by its use there is no danger of the formation of deposits of phosphates. For the same reason the combined treatment of sufferers from uric acid diathesis with such large doses of alkaline carbonates, as for instance administered in Vichy, Eau de Vals or Wiesbaden gout water, is extremely questionable, and may produce more harm than good. The formation of vesical stones from urine containing much phosphate of lime in solution at the temperature of the body, must be enormously increased by the regular administration of large quantities of strongly alkaline mineral water, since the phosphoric acid will be neutralized and the phosphate of lime precipitated, giving rise to fresh deposits

of vesical calculi. The continuance of the mineral water treatment frequently accounts, it is thought, for the difference in chemical composition between the renal and vesical calculi, the former generally consisting principally of urates, the latter of phosphates and oxalates. This theory finds confirmation in the examination of many urinary concretions, a very instructive specimen of which was recently described by Dr. Israel as consisting of a small uric acid nucleus, around which phosphate of lime had accumulated to form a mass of considerable proportions. The patient from whom it was removed had partaken of the Obersalz spring for a considerable time, which contains considerable quantities of alkaline carbonates. Thus the physician should consider the danger of the alkaline treatment, and at least limit the use of alkaline waters and combine the piperazine treatment.

PILOCARPINE AND THE LEUCOCYTES.—Dr. Maurel (*Bull. gén. de Thérap.*, April 15, 1892) finds that ten centigrams of pilocarpine chloro-hydrate suffice to kill the leucocytes of one hundred grams human blood. With five centigrams they live but a few hours and from the instant of contact they are sensibly modified. The mixture of atropine-poisoned and pilocarpine-poisoned leucocytes in due proportions results in the revival of both.

J. G. KIERNAN.

ATROPINE AND THE LEUCOCYTES.—Dr. Maurel (*Bull. gén. de Thérap.*, April 15, 1892) concludes that atropine in five centigram doses, or even less, kills instantly all the leucocytes contained in one hundred grams human blood. With two centigram doses the leucocytes live but a few hours, and from the moment of contact they present modifications of their activity and mode of displacement. In the rabbit the leucocytes can live in solutions containing even more than two centigrams. Taking into account this and the precedent facts, Maurel is of opinion that the leucocytes intervene in death by atropine and its antecedent phenomena.

J. G. KIERNAN.

STRYCHNINE AND THE LEUCOCYTES.—Dr. Maurel (*Bull. gén. de Thérap.*, March 30, 1892) concludes that five centigrams strychnine sulphate suffice to kill suddenly all the leucocytes of 500 grams human blood; two centigrams of strychnine sulphate kill the same quantity in a few hours.

At 86° to 95° the same dose causes the leucocytes to assume the spherical shape, but they return to their ordinary shape at a temperature of 98.6° to 100°. In such a dose, and even at these last temperatures, not only is leucocyte life shortened, but their activity is so diminished that it is evident that a much more minute quantity must have a decided action upon these leucocytes. In strychnine poisoning leucocyte death and death of the organism are simultaneous. Experiments upon decapitated animals show that leucocytes survive the death of the animal. Maurel has found that neither curare nor potassium cyanide kill the leucocytes simultaneously with the animal, whence he concludes that leucocyte death is not necessarily an immediate result of the death of the animal. Whence it results that simultaneous death by strychnine is evidence of the immediate action of the alkaloid upon the leucocytes. The red blood corpuscles evince, even in doses of ten centigrams of strychnine sulphate to one hundred grams of blood, no special results. They preserve their hæmoglobin even after leucocyte death. Strychnine, even in ten centigram doses, does not cause fibrin deposit. Maurel is of opinion, from the effects of strychnine upon the leucocytes, that they play a part in strychnine poisoning.

J. G. KIERNAN.

MULTIPLE NEURITIS.—Dr. C. K. Mills, of Philadelphia, has published a lecture dealing with this condition and its complications. Notes of several cases are given, some mild, some severe, one complicated with acute rheumatism, another with posterior sclerosis, and another with a cerebral lesion causing, apparently, a slight condition of right hemiplegia. Dr. Mills insists upon absolute rest as a preliminary and emphasises the importance of gentle care in nursing patients suffering from neuritis, on account of the excessive pain which handling and movement produce. He is not in favor of half measures in regard to stoppage of alcohol, which is in most cases the toxic agent, and, except in the case of a few broken down old toppers, he thinks it should be withdrawn at once and entirely, while the greatest care should be given to careful and abundant feeding. In a few sthenic cases he is inclined to advocate bloodletting, especially should there be any signs of congestion or inflammation of the spinal cord. For the relief of pain, hot applications, frequently resorted to, and opium, best given hypo-

dermically, may be necessary. As recuperative agents, strychnia by the mouth or hypodermically is recommended, as well as cinchona and digitalis, while such foods as milk and beef extracts will tend to have a similar effect. In the early stages, salicylic acid or salicylate of soda, salol, or oil of gualtheria are recommended as anodynes which are especially useful if there is a rheumatic condition present, while cerebral symptoms are best counteracted by the bromides, antipyrin or acetanilide. Baths, simple or electrical, are also useful, but extreme care is necessary in giving them lest the patient should be in any way exposed to the danger—a very great one in these cases—of cold. Massage and passive or active movements can only do good when the stage of acuteness and excessive pain is passed, and the same is true of electricity in whatever form it may be found desirable to give it. The use of some anodyne ointment for massage is also recommended. Even with these numerous means of combating the condition great patience and long-continued treatment are necessary if success be attained.—(*Lancet*, April 30, 1892.)

B. M. CAPLES.

PARALYTIC OBSTRUCTION OF THE INTESTINE RELIEVED BY THE CONSTANT CURRENT.—Semmola has reported the case of a man, twenty years old, and of nervous temperament, in whom, after the occurrence of diarrhœa, symptoms of intestinal obstruction appeared; to these ischuria was added. Ordinary treatment was without avail and cœliotomy was proposed. From the suddenness of onset of symptoms of obstruction after the occurrence of diarrhœa, from the paroxysmal character of the pain, from the coëxistence of paralysis of the bladder without previous disease, and from the neuropathic tendency of the patient, a diagnosis of paralysis of the bowel was made, and the application of constant current recommended. The positive pole attached to a catheter was introduced into rectum, and negative pole stroked upon the abdomen along course of colon. Applications were made for from eight to ten minutes thrice daily. Symptoms gradually improved and after ninth application bowels were spontaneously moved. In the course of ten days patient was completely restored to health.—(*Med. News*, July 2, 1892.)

B. M. CAPLES.

ON AN OBSERVATION IN CEPHALALGIA.—Dr. H. Weiss has found, as has every other physician, that in migraine and

severe headaches every possible drug or procedure is occasionally useful, but more often useless. He accidentally discovered that on exerting pressure in the median line of the abdomen, midway between the ensiform cartilage and umbilicus, the headache, tenderness of the scalp and photophobia vanished like magic. At first he did not know what to make of his discovery, but soon found that the beneficial effect was the result of compression of the aorta, and not of the sympathetic, as he had surmised. The effect, however, is transient, the symptoms returning sooner or later, but these patients are grateful for the slightest relief. He has tried it successfully in 23 female patients of varying intelligence and size. He supposes that it acts by changing the distribution of the blood and presents the "discovery" for what it may be worth, making no claims.—(*Prag. Med. Wochensch.*, No. 15, 1892.)

G. J. KAUMHEIMER.

Some remarks recently made by Dr. Graily Hewitt in the *British Medical Journal*, as to visual disturbances causing seasickness, and the remedial measures indicated—the maintenance of a horizontal position and bandaging the eyes—have called forth a rejoinder from Professor Charteris, of Glasgow, who will be remembered as advocating the use of a solution of chloralamide to combat the *mal de mer*. In the first instance he points out that blind persons become seasick, and persons sleeping are not always protected from an attack, whilst for obvious reasons the agencies suggested could only be used during a short voyage. Professor Charteris, therefore, without denying that the above precautions might tend to ward off an attack, again draws attention to the mode of treatment already advocated by himself and employed very advantageously in long voyages. A solution containing in each ounce 30 grains of bromide of potassium and 30 grains of chloralamide would, he maintains, be also equally effective as a preventive of sea-sickness in short journeys by sea, and cites a number of recent personal experiences and trials with fellow-passengers in support of his view. The intending passenger should prepare for the journey by taking an antibilious pill for two successive nights before going on board, and when on board should take no food, retire to his cabin and take a full dose of the solution. The effects of this treatment have produced the greatest satisfaction whenever adopted, the patients sleeping

soundly, maintaining a good appetite, and even, it is averred, positively enjoying the rolling motion of the steamer, whilst in cases in which vomiting had already commenced before administration the retching was immediately relieved. Professor Charteris, therefore, confidently recommends this solution as absolutely safe and harmless, producing a refreshing sleep without any baneful after effects, and when judiciously administered preventing, and in all cases alleviating, sea-sickness.—(*Notes on New Remedies*, July, 1892.)

SURGERY AND TRAUMATIC NEUROSES.

CEREBRAL TUMOR REMOVED TWICE IN THE SAME PATIENT.—Erb reports the following case: Man, aged forty-seven, had clonic convulsions affecting the left arm and leg and left side of the face. This condition was followed after a time by hemiparesis of the whole of the left side. Trephining was performed and a gliosarcoma was found in the right anterior central convolution; this was removed as completely as possible. Operation was followed by marked improvement of paretic symptoms while the convulsive phenomena ceased altogether. Eight months later, however, they came on again, though with less severity. A year after first operation patient was again trephined and it was found that recurrence had taken place. The growth was again extirpated, the circumjacent tissue being removed even more freely than before. Second operation was followed by improvement, but the symptoms did not entirely disappear.—(*Brit. Med. Jour.*, July 9, 1892.)

B. M. CAPLES.

ABSCESS OF THE BRAIN: TREPHINING: RECOVERY.—Dr. Morrison reports a case in the *Med. Progress* of August. Patient received cut through left side of scalp, parallel with Rolandic line and one inch in front of it. On afternoon of eighth day patient began to lose power in right arm and leg so that she had to be assisted in and out of bed. When author saw her she was in a semi-stupid condition with no delirium and no convulsive movements. Complete paralysis of right arm and leg, right side of face and tongue, and thick, indistinct speech. Periosteum was found separated from bone for three-fourths of an inch on each side of the

wound in skull. No pus present. Skull trephined in front of middle of bone injured; it was found that internal plate had been separated from external plate one-half inch on each side of cut. Entire seat of fracture was removed with rongeur forceps, leaving an opening one and one-half inches in length by one inch in width. The dura protruded into wound and slight pulsation was observable. The membrane was covered with inflammatory exude in which were imbedded fragments of the internal plate. At upper part of opening was a small, dark, extra-dural blood clot about $\frac{3}{4}$ of an inch in diameter. No sign of suppuration external to the dura. One of the fragments penetrated the dura, and in drawing it away an opening was made through which escaped about one fluid ounce of yellowish-green pus. Cavity of the abscess was found to be one and one-half inches in depth. Carefully washed out with plain boiled water and a rubber drainage tube inserted. Flap was then replaced and secured with silk sutures and dressed. Patient continued steadily to improve. Mental condition is normal and she is now practically well.—(*Med. Progress*, Aug., 1892.)

B. M. CAPLES.

WHEN SHALL WE TREPHINE IN FRACTURES OF THE SKULL?—This is the title of an article by Dr. Lanphear of Kansas City, in which he reviews the earlier rules laid down for trephining and summarizes his conclusions as follows:

RULES FOR TREPHINING IN INJURY OF THE SKULL.

1. In every case of localized injury to the head where unconsciousness persists for more than an hour, exploratory operation, including opening the skull if necessary, should be done.

2. The appearance of stupor some hours after a head injury indicates meningeal hæmorrhage and requires trephining at the point of injury if known, or at point indicated by cerebral localization; the middle meningeal being the usual source of trouble.

3. Even in very extensive injury to the head, operation should be made, since removal of *débris*, restoration of normal contour and cleaning of injured tissues can add but little to the danger and may save life.

4. In every case of doubt exploratory operation is justifiable.

5. Compound fractures, with or without apparent depression, demand enlargement of the wound and careful exploration.

6. All cases of depressed fracture, either simple or compound, require trephining and elevation, whether there be pressure symptoms or not.

7. All punctured fractures and gun-shot wounds imperatively indicate the use of the trephine.

8. In simple fracture of the skull where any symptoms of brain trouble persist, exploratory operation should be done.

9. In all cases of local injury to the skull, whether fracture or bruise, followed by evidence of inflammation of bone or persistent symptoms of brain irritation, or of pus between the bone and dura, the trephine should be resorted to.

GUN-SHOT WOUNDS OF THE CEREBRUM.—Dr. Ruth reported the above case before the Amer. Med. Ass'n. He said that the line pursued by the ball through the brain was usually a straight line, but that it did not bear any definite relation to direction from which the shot was fired, and after passing through brain it seldom rebounds sufficiently to re-enter the brain to any extent. In searching for track of ball he uses a probe with a hemispherical porcelain tip and a slender aluminum shaft. A trephine not less than three-fourths of an inch in diameter should be used. He made the following summary: 1. A ball can be followed in its course through the brain. 2. Having been followed to the point of impact on the opposite side of the skull, a trephine disk should be removed, drainage established and ball removed if possible. 3. That the probe is best which gives the greatest resistance to penetration with the least possible lateral friction on its shaft by the collapsed canal. 4. That hemispherical-front porcelain tip and aluminum shaft answer the indications for lead detection required in a probe better than anything else. 5. That one intending to follow balls through the brain should thoroughly familiarize himself with the resistance the normal brain offers to penetration by the probe he expects to use, so that he may know when he is applying force within safe limits. 6. That he should frequently grasp and remove balls and pieces of bone with the forceps of his choice on the cadaver before attempting it upon the living subject.—(*Med. Record*, July 2, 1892.)

EPILEPTIFORM CONVULSIONS FOLLOWING HEAD INJURY; TREPHINING; RECOVERY.—Dr. Whipple reports the case of a seaman, aged sixty-three, who fell down the hold of a ship, cutting his head and breaking his right leg. Was unconscious for eighteen hours. After consciousness returned suffered from headache for some days. Four days after accident had a fit, since which time he had been subject to fits, having as many as five or six a week. On right side of scalp was a concentric shaped scar crossing fissure of Rolando three-quarters of an inch from the sagittal suture. Pressure over this region gave pain. No depression could be felt; had no paralysis. Pulse became very feeble after a severe fit and occasionally he would be quite collapsed. Breathing at times Cheyne-Stokes. The author removed with a conical-shaped trephine a piece of bone beneath the scar the size of a shilling. Bone was very thick; dura mater firmly adherent. Patient was very restless and troubled with sickness after operation. Remained in about this condition for a week, at the end of which time began to improve and in two weeks from the time of operation was allowed to get up. Made an uninterrupted recovery, having had no fits since operation. Now able to walk about and takes his food well. —(*Lancet*, Apr. 16, 1892.)

B. M. CAPLES.

CRANIECTOMY FOR DOUBLE OPTIC NEURITIS WITH MICROCEPHALY, by Dr. Miller. Patient was a boy eight months old, microcephalic and exhibiting double optic neuritis. Spine and limbs almost constantly extended and rigid; thumbs strongly adducted and fingers flexed over them; legs tightly adducted, right being crossed in front of left. Marked nystagmus and convergent squint, and eyeballs were deeply drawn into the orbits giving child an aged and pained expression. Ophthalmoscopically there appeared severe optic neuritis and atrophy in both eyes with some patches of choroidal pigment in right. When legs happened not to be firmly extended knee-jerk was readily produced. All cranial sutures were completely ossified, no traces of fontanelle being detected. Mother said that there were no soft spots on the head at birth. The coronal edge of the frontal bone was thick and raised above the parietals; left parietal bone distinctly flatter than right; all bony eminences on cranium slightly marked; forehead receding. Linear craniectomy was performed. Length of the bony

excision was a little over three inches, beginning in front at the inner side of the left frontal eminence and extending backward parallel to sagittal suture. The opening was one-half inch wide, and from each end of its outer edge a short branch cut was made with gouge forceps so as to leave the outer boundary of the bone wound in the form of a projecting flap unsupported at its two ends, thus allowing of some subsequent eversion by the brain pressure. The child made an uneventful recovery. The spastic condition of the limbs diminished from the time of the operation. The nystagmus and squint disappeared, eyeballs came forward in the orbits and patient assumed the natural expression of a baby. A few days later child was able to stand. Vision improved. Intelligence had so increased that the patient laughed like any other baby when played with and talked to. When last seen intellectual activity was increased; general health excellent.—(*Brit. Med. Jour.*, July 23, 1892.)

B. M. CAPLES.

NEURECTOMY OF THE POPLITEAL SCIATIC NERVE FOR PAINFUL NEUROMA, THE RESULT OF GUN-SHOT INJURY.—Dr. Ricketts reports the following case: Man, aged twenty-seven; shot two years previously; suffered excruciatingly ever since. By advice of physicians he became a morphine taker. Reached the maximum of fifteen grains daily, hypodermically. Examination showed that the ball had passed obliquely through the left leg to the inner side, three or four inches above the condyle anterior to the hamstring of biceps, passing upward at an angle of forty-five degrees and coming out about middle of thigh externally. Patient stated that when shot he had the sensation in his toes and not at the real site of the injury; was surprised to find it higher up in the leg. Within an hour after injury pain was equally distributed over foot and leg below the knee. At the operation the nerve was found to be enlarged to three times its normal size for a distance of $1\frac{1}{2}$ inches, and divided much higher up in this case than usual. This was fortunate, for had it been normal both branches would have been divided. The internal branch was found to be the injured one and the external was seen to be adherent to it for about three inches. A section was made $1\frac{3}{4}$ inches long, including the entire enlargement. Leg was flexed when the section was made and was retained in this position by means of straps. Pain gradually subsided. Morphine was withdrawn

and small doses of bromide and chloral were substituted. After the 12th day patient was allowed to be up and around on crutches. Left hospital on 22nd day. Author heard from him recently and finds that he is free from pain and the morphine habit.—(*Med. Record*, July 2, 1892.)

B. M. CAPLES.

NEURALGIA OF THE FIFTH NERVE RELIEVED BY DIVIDING AND TWISTING.—Dr. Wyeth presented a patient before the New York Surg. Soc., who came under his care for trifacial neuralgia, the pain being most severe in the inferior dental branch of the fifth nerve. Had suffered for five years. Speaker had operated in July, exposing all three branches of the trifacial, which he had cut and then twisted in order to destroy the conductivity of the fibers. This seemed better than opening the skull and dividing the Gasserian ganglion. Patient was relieved at once and there had been no recurrence of pain. There was loss of sensation. In another case that he had treated, in which the third division of the nerve had been resected unsuccessfully, he had cut all the divisions of the nerve and twisted them and patient had remained free from pain. Dr. Lange had operated in a case of severe neuralgia of the third branch of the fifth nerve in which epileptic convulsions were caused by the pain. He operated by Krönlein's method, seizing the nerve below the foramen and twisting it slowly until it ruptured. The two main branches of this nerve, lingual and inferior dental, were separated, and sections of nerve tissue from an inch and a half to an inch and three-quarters in length were removed, while four or five inches of the muscular branches were excised. The patient made a good recovery and had remained free from the fits for three months after the operation.—(*N. Y. Med. Jour.*, July 2.)

B. M. CAPLES.

TREATMENT OF SPINA BIFIDA BY EXCISION.—Dr. Powers reports a case in which the lumbar meningeal sac was successfully removed. The patient was a poorly-nourished, rather undersized man, thirty-five years of age; was afflicted at birth with a spina bifida. During past year weakness has involved the arms. Some difficulty in raising food to his mouth. Right upper extremity affected to a greater extent than left. At times a cold sensation crosses the chest from shoulder to shoulder. Has had diplopia at a distance

during past year and one-half. Examination of the eyes reveals in right, veins of fundus dilated; in left, optic nerves of a whitish, atrophied appearance; pupils small; not immobile. Walk is ataxic and paraplegic; arms very ataxic. Sensation to touch much impaired below nipple line; reflexes abolished. There was a flattened tumor a little to right of median line opposite last lumbar vertebra. Tumor was removed, sac ligated and wound closed. Complete primary union followed. Author sums case as follows: "A congenital spina bifida with small tumor which gave little trouble in childhood. No nervous element until fifteen years of age, then slight interference with locomotion. At twenty-eight years development of a progressive ataxia and paretic state possibly due to continuous irritation of the tumor by clothing about waist. Successful and simple removal of tumor, a source of comfort to patient, and followed by improvement in ataxic symptoms, which improvement may or may not have been due to this removal (and which seems to have been temporary)". On further investigation the author concludes that treatment by excision must certainly be thought the most rational and most scientific. Improvement will follow more careful selection of cases, the choice of an appropriate time for operation, and added knowledge in technique. The results thus far obtained are certainly encouraging and lead to the belief that the operation is one which will find added favor in the future.—(*Med. Record*, July 16, 1892.)

B. M. CAPLES.

SUBSTITUTION OF DEFECTS IN NERVE TRUNKS.—Gluck proposed, several years ago, to insert strands of catgut or silk in the course of nerves (or tendons) which present an otherwise irreparable solution of continuity. He recently exhibited a number of these cases to the *Berl. Medic. Gesellsch.* The functional results were very good. Bernhardt stated that he had treated some of these cases electrically. In one, 5 cm. of the radial nerve had been lost. Immediately after the operation, R. D. was almost complete. Only after a year's treatment voluntary motion was possible. Five years later, although active mobility was good, a quantitative reduction, of electric excitability still existed. Other cases were of similar duration. Bernhardt states that even if union is complete, we may have to wait a year or more for the return of active motion.—(*Deutsche Med. Wochensch.*, No. 18, 1892.)

G. J. KAUMHEIMER.

OPERATION FOR PRESSURE PARALYSIS.—Dr. Urban, of Liepsic, spoke before the Congress of the German Surgical Society of Berlin concerning operative procedures necessitated on account of the pressure of the spinal column against the cord. At the injured point a horizontal incision is made through the skin and soft parts until the column is reached; another incision is also made on the other side, parallel with the latter, and some distance beyond the injured part. Spinal column then chiseled out until upper half with skin and muscles lying above it can be raised upward and spinal cord can be laid bare. The part which has compressed the cord is now raised with a chisel or some similar instrument, and the parts are again turned back and allowed to heal. In one of Prof. Thiersch's cases the operation was followed with success.—(*Med. Record*, July 16, 1892.)

B. M. CAPLES.

NEUROTOMY OF THE SYMPATHETIC IN EPILEPSY.—Dr. Rudolph Jaksch attempts to obtain a rational explanation of the undoubted success following ligature of the vertebral artery in some cases. He rejects the theory that the interruption of the circulation in the artery has any influence in the matter, and attributes the good results to division of the vertebral plexus of sympathetic nerve fibers. This plexus has been denominated by Hyrtl "the deep cervical portion of the sympathetic system". He assumes that in all cases in which the operation resulted beneficially, the epilepsy was caused by some peripheral irritation which was conducted centripetally by the sympathetic. As the irritation may travel by the superficial as well as by the deep portion of the sympathetic, he recommends that when the vertebral artery is tied that the superficial plexus be excised at the same time. This can be done through the same incision, the section being made above the last cervical ganglion, as the plexus lies on the deep cervical muscles. He relates two cases. The first was a soldier, aged 23. He had had repeated convulsions at the age of 4. After that he was healthy up to his twentieth year. Convulsions then set in, at first at intervals of eight to ten weeks, at last as often as three to eight times daily. An intense pressing pain in the epigastrium, frequently accompanied by vomiting, immediately preceded the convulsion. Bromides having no effect, Jaksch tied the right vertebral artery, and at the same time cut the superficial plexus and

turned its upper end up to prevent reunion. The next morning patient on awakening said he felt as if he had had a convulsion during sleep. Up to the time of writing, over a year after, he had had no more convulsions. Case II was also a soldier, aged 22. His first convulsion occurred after a severe enteritis, two years before. One or two nocturnal convulsions occurred every month, preceded by headache, nausea and an unpleasant indescribable feeling in the abdomen. A similar operation to that performed in the first case was followed by a like result, the patient reporting, eight months afterward, that he had had no more fits. —(*Wien. Med. Wochensch.*, No. 16-17, 1892.)

G. J. KAUMHEIMER.

THE OPERATIVE TREATMENT OF EPILEPSY.—Dr. Herman Kuemmel gives his experience with the various operations suggested for the relief of epilepsy. Trepanation, according to Broca and v. Bergmann, is one of the oldest of operations. Dr. Kuemmel first considers ligation of the vertebral arteries. This operation was first performed by Alexander, of Liverpool, at the suggestion of Hughlings Jackson. In a communication Alexander stated that he had operated 35 times, with 8 permanent cures; 11 cases considerably improved; 16 cases not improved and 3 deaths (hæmorrhage, embolism and pleurisy, each one case). Bernays, Sydney Jones and v. Baracz have also reported cases without permanent results. Kuemmel has performed the operation twice. Case 1 was that of a boy of 16 whose epilepsy began at the age of 7. Frequent and violent convulsions occurred and stupor to a considerable degree was present. The left artery was tied first, without affecting the convulsions, followed in a month by the right. The attacks became milder and less violent, the intellect brighter, but the improvement was of short duration. The epileptic paroxysms again became frequent and violent and the temper very irritable, so as to render his transfer to an asylum necessary. There his mental faculties decayed more and more. In case II, a man aged 25, with a duration of 4 years, the history after operation was almost identical with case I. The curative effect of this operation was supposed to be due to the severing of the fibers which arise from the superior cervical ganglion and accompany the artery to the brain. Its author, endeavoring to attain the same end in another way, has suggested and accomplished the removal of the superior

cervical ganglion. Kuemmel has performed this operation once upon case III, a woman aged 46 years, who had been subject to epilepsy 15 years. The attacks occurred at variable intervals of from a few hours to a month. The only result of the operation, which was performed on the left side, was contraction of the left pupil, redness and increase of temperature on the left side of the face, increase of secretion from the nose on that side, and headache. These symptoms lasted 8 or 9 days. In cases of genuine epilepsy, with no history of injury, a fixed point of tenderness can often be demonstrated. Kuemmel thinks an opening into the skull at this point is often of service, as, in his opinion, the tenderness indicates some intangible lesion of the bone or meninges. He has never found a demonstrable change in the bone removed, but has, in all but one case, found that the operation was followed by a cessation of the paroxysms, of variable duration, and a decided improvement of the mental faculties. Case IV is the same person as case III, from whom the superior cervical ganglion had been removed some time before. A button of bone was removed at a tender spot on the left parietal bone. The dura and cortex were normal. The defect in the bone was closed by a decalcified bone plate. Before this operation, the fits had become more and more frequent, and the stupidity more marked. After this operation, no fits occurred for 2 weeks, then several mild ones in 5 days, and then none for over a year, when a single severe fit occurred. The result in this case was great improvement. Case V, girl 26 years old, duration of disease 12 years. Improvement lasted for some time, when she was lost sight of. Case VI, female aged 21, showed no improvement whatever. Case VII was a boy of 5, who had fits for 3 years, beginning like *petit mal* but becoming more severe and frequent. A constant point of pain was found on the right parietal bone near the coronal suture. Trephining was followed by cessation of the attacks for 2 weeks when they recurred in a much milder form. The improvement in the mental faculties was striking. This patient will be mentioned again. In Jacksonian epilepsy, which is most frequently induced by traumatism, surgery achieves its most signal successes in this field. K. reports 3 cases. Case VIII, aet. 34, received a blow on the head from a blunt rapier, which did not break the skin, 7 years before. No immediate result followed, but several days later he became unconscious and remained so for 12

days. The first epileptic attack occurred 4 years later. This, like all the later ones, began in the right arm and eye. The attacks became more frequent as time went on. On examination a very fine, but sensitive scar, was found over the left parietal bone. On laying bare the dura the bone was found normal; the dura, however, was thickened. This was excised with a thin layer of the cortex. No epileptic fits had occurred up to $3\frac{1}{2}$ years after. Case IX is the boy (case VII). The spasms, which had recurred, presented an entirely different aspect. They now plainly began in the right side of the face and the right arm. The left motor area being exposed was found to be normal. On this account the operator could not bring himself to excise the cortex, which omission he regretted later. He contented himself with removing several ridges on the inner surface of the excised piece of bone and replacing the latter. The fits recurred in 3 weeks. Kuemmel announces his intention of again exposing these centres and excising them. Case X was a man, aged 20, who received a wound above and in front of the left ear. This healed promptly but various cerebral symptoms soon set in, so that less than 2 months after the injury he was admitted to the hospital with the following symptoms: imperfect speech, paresis of right side of face, inability to close the right eye, choked disc, almost complete amblyopia, right-sided deafness and paresis of the right arm, as well as epileptic convulsions of a cortical type. Trephining over the site of the scar showed a tear and adhesion of the dura. The dura was excised, the brain protruding. The decalcified bone plate inserted into the cranial defect was pushed out by the bulging brain. All symptoms vanished after the operation, a hernia cerebri remaining. In conclusion, Kuemmel reports a case of temporary resection of the skull in the case of a congenital epileptic idiot $3\frac{1}{2}$ years old. A depression of the skull was found near and below the lambdoid suture. The blade of the obstetric forceps used at birth was blamed for this. A piece of bone as large as the palm of the hand, including the depressed piece, was resected. It was found that the depression showed on the inner surface as a ridge which left a very distinct impression on the surface of the brain. This ridge was chiselled off and the bone replaced. Within 2 months the child had learned to sit, to walk alone and to feed itself, all of which was impossible before. The epilepsy had vanished after the operation. The mother has lately

reported constant satisfactory progress.—(Dr. H. Kuemmel, *Deutsche Med. Wochensch.*, No. 23, 1892.)

G. K. KAUMHEIMER.

OPERATIVE TREATMENT OF EPILEPSY.—Kummel refers to two cases in which the vertebral arteries were ligatured for genuine epilepsy with very temporary benefit, and to another case in which the superior cervical ganglion was extirpated. Four cases are recorded in which trephining was practiced over definite tender spots, with a longer or shorter cessation of the fits and with considerable mental improvement. A further case died in consequence of operation. Author says that the results in such cases of idiopathic epilepsy cannot be looked upon as very satisfactory, and doubts whether any case has been really cured. The so-called reflex epilepsy is next referred to. Cortical, or Jacksonian epilepsy, almost always traumatic in origin, is the most important in regard to surgical treatment. After giving some details in regard to method of operation and localization of lesion author relates three cases: (1) A man, aged 34, received blow on head in 1881; four years later fits began. They started in facial area and arm, became more frequent later, and intense headache supervened in 1887. Trephining was practiced in 1888 at site of a tender scar over parietal bone. Nothing on inner surface of bone but dura mater was adherent to parts beneath and presented a cicatricial appearance. It was excised. Patient has remained quite well since operation, three and one-half years ago. (2) Boy, aged five; previously trephined but with only passing benefit. Fits affected left arm and face. The corresponding centres were exposed but no pathological change was found. Fits returned later. Author thinks that he will have to remove these centres. (3) Lad, aged twenty; had a blow on head in Sept., '91. Ten days later there was spasm in right arm and face. Speech, sight and hearing became affected. Slight paralysis of face and right arm. Choked disc present. Patient was trephined over one of two cicatrices. A rent in the dura mater and adhesions were found. This part of dura mater was excised. Patient recovered perfectly from the symptoms, a prolapse of the brain alone remaining. Author then refers to the case of an idiot, aged three years, who had frequent fits. A depression was found near the lambdoid suture, probably the result of injury during birth. A large piece of bone was temporarily resected and a deep depression was found in the

brain. The corresponding bony projection was removed. Very great improvement followed while the child continued under observation. Later its mental development was still progressing and there had been no fits.—(*Brit. Med. Jour.*, July 9, 1892.)

B. M. CAPLES.

THE SURGICAL TREATMENT OF EPILEPSY.—Dr. Sachs gives a record of his joint experience with Dr. Grester in the surgical treatment of epilepsy, before the Amer. Neurological Ass'n. The cases reported upon were either of distinct traumatic origin or those in which a strictly localized convulsion pointed to a limited focus of disease. Author was of the opinion that it was not necessary to map out upon skull brain areas to be operated upon. Thought the application of faradic current to dura would help to localize the centres much more accurately than any of the customary rules. Where brain had been seriously altered by disease it might not respond promptly to current. In several cases there had been a diminution of attacks immediately after operation, and in some, improvement lasted for three months. In other cases attacks recurred after a lapse of several months, or less time. Could not report a single decided cure. The only hope from surgery was in prompt interference in injury of skull to remove the focus of disease before secondary changes had been set up. It was the opinion of these observers that the way to cure epilepsy was to prevent its development by early operation.—(*New York Med. Jour.*, July 30, 1892.)

B. M. CAPLES.

MYXŒDEMA AFTER THYROIDECTOMY.—Natier (*Rev. Intern't. de Rhin., de Otol., et de Laryng.*, May, 1892) reports a case of myxœdema, with complete paralysis of the right vocal cord and paresis of the left, occurring after thyroidectomy in a 27-year-old man.

J. G. KIERNAN.

TRAUMATIC NEUROSES IN CHILDREN.—Dr. Vibert (*Prog. Med.*, June 18, 1892) cites the case of a two and one-half-year-old girl who was found in a car after a railroad collision. She had received a slight frontal contusion, had not been rendered unconscious, but was in such an agitated state that soon after she tried to throw herself out of her father's arms while seated on the top of an omnibus. Vomiting came on and was followed by a week of acute hallucinatory insanity

with terrifying sights of flames, wild beasts, etc. In a week these acute symptoms disappeared but a complete change of character was noticed. Hitherto sweet-tempered she became difficult to manage, sad and taciturn. From time to time, without observable cause, her face paled, she assumed an expression of extreme terror, had hallucinations of the type past described and then returned to the normal state. Hitherto careful in her habits she began to wet the bed. There was no evidence of nervous attacks nor lack of sensibility. There was no heredity. Slight amelioration in bed-wetting followed treatment. The second case was that of a five-year-old boy upon whose forehead a plank had fallen, which had resulted in half an hour's loss of consciousness. Later the patient had meningitoid symptoms and vomiting. There were no convulsive attacks but later the character changed much. He became sad, suspicious and slept badly, his sleep being broken by terrifying dreams. Dr. Gilles de la Tourette was astonished to find Dr. Vibert using a term (traumatic neurosis) which had been abandoned by scientists. The two cases suggested hysteria, which in children often took just such forms. Dr. Christian called particular attention to the symptom, vomiting, which, joined to the other symptoms described, indicated in both a true cerebral commotion. The prognosis in his opinion was grave. Dr. Vibert did not think that there occurred in either case cerebral commotion or meningitis. He asked if "traumatic neurosis" were not as precise as "traumatic hystero-neurasthenia." Dr. Gilles de la Tourette said that the two terms were not synonymous. Oppenheim, who had created the term "traumatic neurosis," admitted that it lacked scientific precision. Dr. Garnier was of opinion, like Dr. Vibert, that both cases had a cerebral character. They should be entitled "cerebral accidents of traumatic origin in children."

J. G. KIERNAN.

RECENT LITERATURE ON TRAUMATIC NEUROSES.—Owing to the insurance laws of the German empire, traumatic neurosis continues to occupy the attention of our German colleagues and to furnish the basis for considerable literary activity and some acrimonious personal discussions. Dr. C. Hübscher (*Deutsch. Med. Woch.*, No. 17, 1892) has found in six cases of neurosis following injury, motor asthenopia on convergence. On approaching an object to the eye, binocular vision became impossible at a point from 2 to 4 times the

distance obtained with a normal eye. At the same time, the motor range of vision was normal. Wilbrand, in collaboration with Saenger, of Hamburg, (*Deutsch. Med. Wochensch.*, No. 17, 1892) has investigated the behavior of the visual field in traumatic and functional neuroses. He divides these cases into three groups. Group 1 includes those who make no complaint of ocular or visual troubles; group 2 includes those cases with asthenopic troubles, but without demonstrable lesion of the central nervous system, or its bony envelopes. This group includes most of the cases observed. The asthenopic symptoms may be classified as: (a) contraction of the visual field, more or less pronounced; (b) symptoms of extraordinary exhaustion of central or eccentric vision, or both, producing central exhaustion-scotoma or an increase in the contraction of the visual field; (c) photophobia; (d) photopsia in the form of bright or colored bodies; (e) hallucinations of sight; (f) diminution in the acuity of central vision; (g) paroxysmal increase or decrease in the apparent size of objects; (h) monocular polyopia; (i) weakness of accommodation; (k) paroxysmal diplopia; (l) sensations of vibration; (m) tonic or clonic blepharospasm. The pupils are usually normal, but may be unequal; the fundus is always normal. Group 3 includes the cases in which, in addition to some of the symptoms of the preceding group, a demonstrable lesion of the cerebro-spinal system, its bony envelopes or peripheral nerves is present. Here the symptoms of the organic lesion are added to the functional disturbances. In a fourth group might be included the traumatic neuroses of nervous children, which have long been known to the ophthalmologists. Wilbrand and Saenger have examined 60 individuals, some simply "nervous," some the subjects of functional neuroses, and found that the symptom-complex of nervous asthenopia was the same in all neuroses, and in nervous school children, as well as in adults suffering from neurasthenia, hysteria and chorea, with the exception that in hysteria the spastic or paretic element may predominate. They found, associated with all these forms of nervous asthenopia, disturbances of cutaneous sensibility in the form of zones and spots of hyperæsthesia, hypæsthesia, analgesia or paralgesia, extending in some cases to anæsthesia of a limb or of half the body. Further, increase of cutaneous and tendon reflexes, occasionally unequal on the two sides, and an increased vaso-motor irritability were found. The psychical shock will

produce a traumatic hypochondria, neurasthenia or hysteria, according to the predisposition of the affected individual, and the authors prefer these expressions to that of traumatic neurosis. In fact, a number of German authors are inclined against the use of the latter term as being too indefinite and including too many varying and contradictory symptoms. Inasmuch as no case presents all of the symptoms recounted, it is not surprising that not all the cases of traumatic neuroses present a contraction of the visual field. If the patient makes no complaint of his eyes, their examination is often neglected, or only one eye may be examined as a matter of form. Besides this, differences of method give variance in the results. The size of the visual field, as is well known, varies with the size of the test-object and the distance at which it is held, as well as with the direction from which it enters and leaves the visual field. Very slight contractions have the same symptomatic value as those of greater degree. Like all other functional nervous symptoms this is extremely variable in intensity and duration. The cases of optic atrophy reported by Oppenheim are probably cases of injury to the nerve in the optic canal, due to fracture at the base. In rare cases, a pale papilla, in an anæmic individual, may be mistaken for an atrophic one. In conclusion, Wilbrand states that, in his opinion, it is absolutely impossible for anyone to consistently and successfully simulate even a slight contraction of the visual field. In cases of doubt the presence or absence of disturbances of sensation and the increase of the tendon reflexes, would settle the question. This article has been published in book form. (See Literature.) Per contra, Schmidt-Rimpler (*Deutsch. Med. Wochensch.*, No. 24, 1892) states, from his experience as an examiner of recruits, that contractions of the visual field are often simulated to such a degree as to require all the patience and knowledge of the expert to expose the fraud. It is mainly done by the subject denying vision entirely until the object is brought into the field of distinct vision. While the object is in the zone of indistinct vision they claim they cannot see it. By this means, the same result is obtained upon repeated examination. By varying the size of the test object and by campimetric tests, aided by the stereoscope and prismatic lenses, he has been able to detect a large number of malingerers, many of whom confessed the fraud and were able to do full military duty. Nonne (*Deutsch. Med. Wochensch.*, Nos. 27-29,

1892) relates a number of selected typical cases of nervous troubles, both functional and organic, following injury, and reaches the following conclusions: "The typical clinical picture of *commotio spinalis*, of hysteria and neurasthenia, as well as the clinical symptoms of organic spinal and cerebral lesions, may result from traumatisms of different varieties". Although he does not doubt but that all the cases related can be consistently classified as belonging to the "traumatic neuroses" of Oppenheim, he is in favor of retaining the specific names of the symptom-groups presented. The adjective "traumatic" might be appended. In this he agrees with Jolly, Eisenlohr, Schultze and Wilbrand. In regard to the disturbances of sensation he has, in some of the most severe cases of nervous trouble following traumatism, found them either absent, or trivial and evanescent. In others they were present to a varying degree. Contraction of the visual field was absent, in five cases (out of fourteen); in three it accompanied traumatic hysteria; in two, organic brain lesion; in one, severe cerebro-spinal neurasthenia. In one case no reliable result was obtained. The psychical troubles, upon which Oppenheim lays such stress, were present in one case only. The cases with organic symptoms seem to become stationary or progressively worse, while the hysterical cases usually tend to recovery. The location of the injury seems to have some influence upon the location of the neurotic symptoms. Simulation was never found; exaggeration of symptoms was proven in two cases. Neuropathic heredity was present in only one case; of other predisposing causes chronic plumbism was found in one case. Careful investigation proved the existence of nervous symptoms before the injury in one case, which recovered in a relatively short time. The symptoms could be attributed to alcoholism in one case. A second edition of Oppenheim's work, "*Die Traumatischen Neurosen*, etc." has been issued.

G. J. KAUMHEIMER.

PSYCHOLOGICAL.

PATHOLOGY AND SYMPTOMATOLOGY.

OUTLINES OF A PSYCHIATRIC SYMPTOMATOLOGY.— The nomenclature of the symptoms of mental disease presents peculiar difficulties. The great variety of mental disturb-

ances, together with the vast differences even in normal mental types, makes it still more difficult for any man, however experienced, to cover the entire field of possible cases with his personal experience. It is in the study of other men's cases that the need of some systematic classification of mental symptoms is most acutely felt. Wernicke states that the same symptom may be produced in different ways. For example, mutism may be psycho-motor in origin; it may be purely psychical, as a result of delusions or mental hebetude; or it may be psycho-sensory, being caused by abnormal sensations in the tongue, throat or other parts. The nomenclature should correspond, at least in meaning, with the following classification: psycho-sensory anæsthesia, paræsthesia or hyperæsthesia; intrapsychical afunction, parafunction or hyperfunction; psychomotor akinesia, parakinesia or hyperkinesia. The necessity of a classification of the contents of our consciousness, so far as it is identical with the sum total of memories, requires another division which Wernicke has found practically useful. He divides consciousness into that of corporeality, of the surroundings, and of the personality. The disturbance of secondary identification is frequently confined to one of these divisions, and might be expressed as somato-psychosis, allo-psychosis, and auto-psychosis respectively. This is only intended as a preliminary sketch of what is necessary to bring the student to a clear understanding of the concrete case, "and will save him the trouble of learning the useless, nay, even detrimental art of crowding a clearly comprehended picture of a case into the Procrustean bed of an artificial classification."—(*Berlin. Klin. Wochenschr.*, No. 23, 1892.)

G. J. KAUMHEIMER.

DENTAL ANOMALIES IN THE INSANE.—Luzenberger (Italian Freniatrial Soc., 1891, Abstr. in *Archivio Italiano*) reported the results of the examination of one hundred men and seventy-two women in the provincial asylum of Naples, as to the dental peculiarities they presented. The frequency of these was found to be ten times as great as in normal individuals. The special deviations from the normal that were most frequent or notable were: A sort of trapezoid shape of the lower jaw, the incisors in a straight line, the canines slightly salient at the angles; a tendency of the teeth to converge inward toward the palate, to which the author gives the name of *oprithogenism alveolare*. The

greater number of deviations were met with in the positions of the teeth. As between the two sexes the women seemed to have, in the cases observed, the better dentition. Heterotopia was not infrequent. Supernumerary teeth were observed only once in full development, and two enormous supernumerary teeth in one other individual. The specialties in form of teeth most prominent, were a small cylindrical shape of the canines, and the molars *a crescenza*, or with pithecoïd tubercles. The statistical tables are divided according to diagnosis and morbid heredity. Certain forms of marked atavism, such as the tubercle of Carabelli and the molars *a crescenza* (second much longer than first) are found, as a rule, in psychopathies of a degenerative character. Others, especially the small and equal incisors that recall the dentition in some of the lower mammalia, are met with more frequently in the psycho-neurotic forms of insanity, suggesting a doubt whether they could be considered atavistic peculiarities, or those, perhaps, of the psycho-neuroses, but developed in an originally defective organism.

H. M. BANNISTER

CRANIAL ANOMALIES IN THE INSANE.—S. Beauchi and Fr. Marmo (*Revista Sperimentale*, XVIII., April, 1892) publish the results of an examination of over a thousand (1,019) crania of the insane from the Manicomio of Reggio-Emilia, which are illustrated by ten elaborate tables in addition to the text. The form of insanity was known in each case and the anomalies are tabulated in accordance. The authors divide the whole into the two general divisions of congenital and acquired insanities, including in the former all the cases of idiocy, imbecility, epilepsy, hysteria, paranoia and periodic psychosis, and the latter comprising all the other forms. The general results are stated as follows, the percentages on the whole number of each class being given:

Anomalies found—	TYPE OF INSANITY.	
	Congenital.	Acquired.
Metopic Suture.....	13.72	8.54
Frontal Process of Temporal.....	1.30	.92
Median Occipital Fossa.....	5.22	4.50
Frontal Crest.....	15.03	20.78
Pterygo-Spinous Foramen.....	4.57	2.42
Third Condyle.....	.65	.46
Lemurine Apophysis.....	1.33	3.46

In their discussion of their figures the authors disclaim any intent of generalizing from these comparatively few facts, and agree that some consideration must be taken of the population to which the crania examined belonged, and that a

comparison is yet needed of crania of normal individuals from the same region. It is noteworthy, however, that the anomalies are more frequent in proportion in the congenital or degenerative forms than in the simple psychoses. The comparatively small number of the former (63 males, 90 females) out of the total series examined, leaves much to be desired, but the average is certainly higher. The apparent exceptions to this, the greater percentage of frontal crest and of the lemurine apophysis amongst the acquired forms, lose some of their force as such, from the fact that the most developed types of the former were observed in the congenital forms, and the latter seems to be almost a sexual peculiarity, only four out of thirty cases being in female crania. The authors do not consider these anatomical abnormalities as causes, but rather as concomitants of the insanity. An unstable nervous system would be likely to have other coexisting vices of conformation. It might be supposed that the persistent metopic (median frontal) suture was due to greater development of the frontal lobes, but it is found most frequently in idiots and imbeciles. It cannot be admitted that a cerebral alteration could be able to so develop the squama of the temporal as to produce a true temporo-frontal process. Medical literature has numerous cases that contradict the probability of the medio-occipital fossa being due to over development of the vermis, and it suffices to consider the position and relation and slight extent of the frontal crest to show that it can hardly be admitted as dependent on any lack of development of the frontal lobes. As regards the pterygo-spinous foramen, the third condyle and the lemurine apophysis, they are all too remote from the cerebrum to hold that its altered function could give rise to their abnormal organization.

H. M. BANNISTER.

PELVIC REGION ANOMALIES IN THE DEGENERATE—Dr. E. Laurent states (*Arch. de Anthropol. Crim.*, Jan., 1892) that in degenerate criminals there are frequently encountered anomalies of the size of the penis; incomplete development or atrophy of this organ similar to that found by Bourneville and Sollier in epileptics and paranoiacs. Hypospadias is much more frequent than epispadias. The male pelvis are frequently infantile or feminine in type. Congenital deviations of the pelvis are comparatively frequent.

J. G. KIERNAN.

TEMPERATURE IN THE INSANE.—Gonzales and Verga in a paper read before the Italian Freniatrial Society (*Archivio Italiano*, XXIV, V and VI, 1891) reported the results of investigations, suggested by the thermometrical asymmetry reported by Tonini in epileptics, which they had undertaken to test the possible differences of temperature of the two sides of the body in the insane. Their subjects were ten cases of epileptic insanity, five of hysteria, six of moral insanity, two of impulsive monomania, three of alcoholism and five of pellagrous insanity. For purpose of comparison they tested ten robust and intelligent attendants. Their conclusions were as follows: "(1) Exceptionally in normal individuals, frequently in the insane, there is found in the same subject different temperatures on the two sides of the body. (2.) In normal subjects the temperature is either alike in the two axillæ, or, if it is higher in the right, the difference is not more than one-tenth of a degree. (3.) Hysterical and epileptic insanities give the greatest number of cases in which the temperature of the left side is the greatest as compared with other forms, both as regards number and intensity; fifty per cent. in the first, and forty per cent. in the second. The reverse is also very numerous and this in the same proportion. (4.) According to their examinations, moral insanity gives about thirty-three per cent. of highest temperature on the left, and alternating. The constant temperature of the two sides in the same subjects is not so frequent, but we meet more often than in the preceding forms the same temperature in repeated examinations. (5.) In alcoholic and pellagrous insanity, the temperature varies in the right and left in the same individual, without any special numerical predominance of one side over the other, and the temperatures are equal more frequently than in moral insanity; about half. In pellagrous insanity is observed a greater intensity of temperature on the left side. (6.) Age has no marked influence upon the temperature difference of the two sides of the body". The authors intend to carry on their observations on a more extended scale.

H. M. BANNISTER.

VERBAL BLINDNESS.—Bianchi (Italian Psych. Soc., 1891, Abstr. in *Archivio Italiano*) reports four cases illustrating types of verbal blindness, from the analysis of which he deduces the following conclusions: "1. Verbal blindness is

not of itself a special form of disorder of speech, but is a very variable symptom-complex that might be better designated by the name of optic aphasia, as proposed by Freund. 2. The memory of places, as well as that of written words, of objects, of written musical notes, is a visual memory and is localized in the visual area, varied according to individual conditions. In general, we can not speak of memory, but of *mémoires*, which are, as it were, homologous groups of sensations and of movements respectively located in the cerebral cortex. 3. We do not accept, in the sense used by Munk and his followers, the distinction between psychic and cortical blindness. The blindness for written words, as well as that for objects and that for light itself, are all psychic blindnesses, and the term cortical blindnesses is merely a pleonasm, since all psychic blindnesses are either cortical or associative. 4. Amnesic aphasia, as a particular clinical form specially localized, does not exist. Amnesic aphasia is a symptom connected with the function of the sensorial centres for language; it may originate, therefore, from the destruction or the paresis of the auditory images of words in the auditory form, and the destruction or paresis of the visual images of words in the visual form, as in the fourth patient whose case was reported, in whom through his whole life the typographic memory was eminently a visual one; it may arise, however, from a functional deficiency of the whole sensory area, giving rise to difficulty in the recalling, either spontaneous or volitional, of representative images."

H. M. BANNISTER.

VERBAL PSYCHO-MOTOR HALLUCINATIONS, according to Ségla's (*Arch. de Neur.* May, 1892) seem to be frequent in melancholiacs. They may be taken for verbal auditory hallucinations, and perhaps these last should be considered rare if, before admitting them, the possibility of internal voices, illusions and delusional interpretations be eliminated. In a general way it may be said that the mental state of melancholia is not suited to the development of verbal auditory hallucinations. If these occur, there is strong reason for suspecting the coexistence of another psychosis. Ségla's once more reiterates the proposition so frequently needed by British Philistines, that stupor due to the presence of hallucinations should be distinguished from stupor proper.

J. G. KIERNAN.

ON FIXED, OR DOMINANT IDEAS.—A number of cases of mental alienation occur in which the only departure from a normal standard is the prevalence of a fixed, or dominant idea. These are the cases which were formerly classified as monomanias. A familiar form is querulous insanity (*Querulantenwahn*), but the ideas may involve almost any subject. In the type mentioned, it involves a real or fancied injustice. According to Wernicke's classification (see present number of *Journal*) they would be circumscribed autopsychoses. Every dominant idea shows the peculiarity that it becomes the infallible criterion of all further experiences and is incapable of correction by contrary experiences. In this they approach the hallucinations. They are usually very chronic or incurable, although the patient may learn to suppress his dominant ideas. Wernicke cites a case where a patient, on realizing that he would have to abandon his constant clamor for justice in order to be released, did so, and has lived quietly at large for over four years.—(Prof. Wernicke, *Deutsche Med. Wochenschr.*, No. 25, 1892.)

G. J. KAUMHEIMER.

NEGATIVE DELUSIONS—Dr. Camuset (*Progres Med.*, Aug. 6, 1892) concludes that whatever be the type of their psychosis, melancholiac delusions are likely to be of negative type; not so with the persecutory delusional lunatics. Delusional negative conceptions are often manifested during the course of anxious melancholia. Certain anxious melancholiacs resemble the negative delusional type described by Cotard, but are not so nosologically distinct as to merit special classification. Prognosis depends upon the psychosis presented. Intermittent vesanias of this type do not recover. Most of the negative delusions occur in females and most frequently in families of degenerative taint. In depressed senile psychoses negative delusions occur. Patients destined to become negative delusional lunatics are sombre, taciturn, timid and often present degenerational stigmata. Negative delusions are often found among paretic demented. Regis was of the opinion that negative delusional insanity, as described by Cotard, merited a nosological place among the psychoses. He cited what he considered a typical case, which presented anxious melancholia, ideas of possession and of damnation (the patient believed he was a devil or part of one), propensity, suicide and auto-mutilation, hypochondriacal notions as to the non-existence of his body, soul,

or of God. The patient believed that he had neither heart, lungs, tongue, eyes, nor any other organ, but had turned into stone. He also claimed that being turned into stone he was immortal. Dr. Seglas thought that beside the negational delusions found in parietic demented, imbeciles, and the senescent, there existed a negational delusional insanity.

J. G. KIERNAN.

AUDITORY HALLUCINATIONS IN FACIAL NEURALGIA.—Dr. Féré reports (*Mercuredi Med.*, May, 1892) a case of an epileptic with trifacial neuralgia complicated by zona, in which menacing voices were heard on the affected side. The patient was conscious of the abnormal nature of the voices. There was at the same time an intense sialorrhœa which made its onset with the neuralgic symptoms and the voices, and which disappeared with them. The epilepsy, Féré points out, predisposed to the hallucinations.

J. G. KIERNAN.

THE UNILATERAL HALLUCINATION, according to Dr. Toulouse (*Gaz. des Hôp.*, June 4, 1892) is a symptom of considerable clinical value. It may be of two origins; a local sensorial, or a cerebral. The diagnosis will turn on the examination of the sense organ affected. In case no lesion be found there, but other sensory and motor disorders exist, the hallucination is due to a cerebral cause.

J. G. KIERNAN.

FOLIE À DEUX WITH REMARKS UPON SIMILAR TYPES OF INSANITY.—Dr. C. K. Mills presented notes on two cases of this disease before the Amer. Neurological Ass'n. Patients were sisters, the eldest thirty-two years of age, the other two years younger. The father was a hard-drinking, quarrelsome man. The first patient had been deranged for three or four years. Complained of strange feelings, as of something growing in her abdomen, of sickness of the stomach, bloody passages, chills and other unpleasant sensations. Had been troubled for a long time with strange voices. Was tormented by people both at her work and at home, and was made to say very ridiculous things. Apparently had hallucinations of several senses. A stench of blood came up through her throat; at times she was grasped by a hand. Men would appear before her and sometimes they would get on their knees and solicit her, and she was full of sexual delusions. The heads of men

would appear before her at her work. When she did not see them she would feel them or hear them. Often heard their voices talking with her after midnight saying all sorts of filthy things. The other patient's mental disturbance had come on a few weeks after that of her sister. Symptoms were much the same as those in the former case. Both appeared to believe firmly in what they said, and yet at times to appreciate that something was wrong in their heads. They presented, as is not unusual, a blending of the characteristics of the three forms of folie à deux, that is, of the imposed insanity, the simultaneous insanity and the communicated insanity. The influence of heredity was decided. The delusions were persecutory.—(*Med. Record*, July 30, 1892.)

B. M. CAPLES.

MORBID SEXUAL EXCITATION.—Ball, in a recent lecture (*Jour. de Med. de Paris*, June 26), divides the psychical disorders of sexual passion into: I. Erotomania (the chaste type); II. Sexual excitation (five forms, the hallucinatory, the aphrodisiac, the obscene, nymphomania and satyriasis). III. Sexual perversion, (four types, the sanguinary, necrophiliac, pæderasts and interchanged.) In the hallucinatory type the persecutory lunatic experiences sexual persecution. Mania, puerperal insanity and "religious" insanity furnish frequent examples as also do alcoholic lunatics. One hypochondriacal paranoiac was, he claimed, turned into a female prostitute and could not eat his meals because his nose, mouth and intestines were gorged with sperm. The aphrodisiac type has the sexual appetite enormously exaggerated. Nymphomania, in Ball's opinion, is a grave symptom of an often fatal psychosis. It may be a chronic or slight type, and an acute or grave type. The grave type resembles typhomania with a sexual symptom.

J. G. KIERNAN.

PASSIVISM (a type of sexual perversion seeking delight in self pain, which Krafft-Ebing has designated Masochism), according to D. Stephanowski, consists (*Arch. d. l'Anthrop. Crim.*, May, 1892) in the absolute subjection of the will of one person to the profit of another for an erotic end, with an intense desire for abuse and maltreatment. The phenomena of passivism, (which is the antithesis of sadism) is divisible into moral and physical types. The first consists in debasement and

humiliation before a woman, or (if a perversion exist) before another man (fellateurs), cunnilingus, stercovaires, etc. Physical passivism consists in flagellations, blows, etc. Stephanowski cites instances to prove that flagellation often acts psychically and not always physically. Normal love makes sacrifices, but that is not passivism. The pathological factor enters when such sacrifices are made without seemingly adequate cause when the lover submits to fustigations for the sole purpose of exciting his sensuality. Passivism, according to Stephanowski, is a survival of the courtship paid by male animals to female animals to gain their favors; it is a pathological exaggeration of this courtship.

J. G. KIERNAN.

REFLEX IRIDOPLEGIA IN GENERAL PARALYSIS.—Redlich has investigated the iridal contractility to light in general paralysis of the insane with special reference to consensual reaction. In all cases examined by him he found that if each iris reacted to direct light stimulation the consensual activity was intact in each eye, but if neither iris responded to the incidence of light upon its retina there was complete absence of consensual motility in both irises. In all cases presenting loss of direct light reflex in one eye only, illumination of that eye caused consensual action in opposite iris; on the other hand, no pupillary change in iridoplegic eye resulted from exposure to light of sound eye. He concludes that these phenomena can only be explained by a partial decussation of the light reflex fibers of the optic nerves, the crossing taking place in such a manner that from each optic nerve fibers proceed to the right and left oculomotor nuclei. This decussation must be situated peripherally to the lesion which causes abolition of the light reflex: probably it takes place in the chiasm or posterior commissure.—(*Brit. Med. Jour.*, July 9, 1892.)

B. M. CAPLES.

GENERAL PARALYSIS IN A BOY.—Charcot and Dutil report case of a boy, sixteen years of age, who apparently had general paralysis of the insane. Was one of three survivors of a family of eighteen. Father alcoholic and had an attack of alcoholic delirium soon after boy was born. When he came under observation looked younger than his age, marks of puberty being little apparent, as if his physical development had undergone a somewhat sudden arrest. Had the characteristic, uncertain, awkward gait; showed fair capacity

for attention to questions; manifestly feeble intellectuality; memory notably impaired. Had tremor of tongue and lips and difficulty in articulating. Tremor in hands was marked; writing was characteristic. Pupils unequal and he was subject to attacks of peculiar sensations in different parts of his limbs, chiefly on the right side. In one such attack there was well marked interference with speech functions. No exalted ideas were present, but the case presented so many other characteristic features as to leave little doubt that it should be placed in the category of general paralysis occurring at an unusually early age, like several cases already recorded in this country and in France. With reference to the age of incidence of general paralysis of the insane the opinion of Mickle is quoted, viz., that the age at which general paralysis develops nowadays is an earlier one than it was formerly, and that this is the result of a premature senility among individuals and is a precursor indicative of the decadence of the race. But, perhaps, as is suggested in the paper under notice, it is really a result of our being now able to diagnose the condition when its signs are much less manifest than they had to be before the disease could be recognized in former times.—(*Lancet*, April 23, 1892.)

B. M. CAPLES.

AUTO-INJURY IN PARETIC DEMENTS.—Vallen (*Prog. Méd.*, Aug. 6, 1892) points out that attendants and insane-hospital officials are often unjustly accused because of self-injury by paretic demented. These patients often keep their limbs constantly agitated. Others constantly button and unbutton their clothing, causelessly dressing and undressing. Others tear their clothes to tatters and use these to bind their limbs, thus readily producing bruises simulating linear blows. When confined to bed these last injure themselves by tossing, thereby causing ecchymoses which readily become phlegmonous. In some instances scratches of a rather serious nature are done by the patient. One such self-mutilator laid his testicles bare.

J. G. KIERNAN.

AUTOMATISM IN PARETIC DEMENTIA.—Drs. Regnault and Azonlar (*Progress Méd.*, Aug. 6, 1892) report a case of automatism in the depressed period of paretic dementia.

J. G. KIERNAN.

SUICIDE BY BREAD CRUSTS IN A PARETIC DEMENT.—Lizaret (*Ann. d Hygien Pub. et de Med. Leg.*, March, 1892) reports the case of a paretic dement who made a saw-toothed instrument from bread crusts with which he sawed the precordial region. Through the aperture thus made he introduced splinters of wood in the direction of the heart.

A CASE OF OPHTHALMIC MIGRAINE WITH TRANSITORY EPILEPTOID PSYCHOSIS.—The patient was a young man, aged 17, who gave a history of a strongly neuropathic ancestry and of convulsions in infancy. At the age of 14 several attacks of somnambulism occurred. Soon after these the patient became sick with influenza, which was followed by peculiar mental disturbances. These were marked by a decided obscuration of consciousness, although allowing a certain rapport with his surroundings, by considerable excitement with occasional tendency to violence, moderate mental confusion and great irritability. Occasionally hallucinations were noticed. These attacks lasted but a few hours and usually occurred about bedtime, gradually subsiding into sleep from which the patient awoke the next morning with complete amnesia of the occurrences of the evening before. These paroxysms were easily produced by any extraordinary event which the very excitable patient had observed, and which then usually dominated the succeeding confusion. Occasionally he felt the attacks coming on. Besides this, he very frequently suffered from migraine, at times coming on as hemicrania, with vertigo and great weakness, at others accompanied by various visual disturbances. The mental disturbance always was preceded by the headache, but the latter often continued after the mental symptoms had again passed off. He recovered under bromides, mild hydrotherapy and occasional galvanization of the head. The author is inclined to attribute the mental disturbance to a vasomotor disturbance of the cerebral circulation without trying to determine its localization or causation. The similarity of the mental symptoms to those of a transient epileptic psychosis is obvious. In fact, Feré, in a late monograph, considers ophthalmic migraine as a sensory epilepsy. Zacher, however, does not agree with him, as in this case the migraine ran its course independently of the mental disturbance, which only occurred during the more severe attacks. Z. has only found one case of mental

disturbance following migraine—that of Loewenfeld. Besides this, Grasset quotes Liveing to the effect that they may occur, but does not mention cases.—(Dr. Th. Zacher, *Berlin Klin. Wochensch.*, No. 28, 1892.)

G. J. KAUMHEIMER.

ALCOHOLISM AND INSANITY.—The *Veröffentlichungen des Kaiserl. Gesundheits-Amtes* (No. 4, 1892) gives statistics relating to this subject, obtained from official sources. Among 32,068 patients admitted to public or private institutions for the insane in Prussia in 1886–88, 3531 (11%) were suffering from alcoholic insanity; 154 of these being females. (The figures for 1880–82 are 2897 and 150.) Among the 3228 whose age could be ascertained, 1817 were under 40 years old, 1303 were between 40 and 60 and 108 were older. 56.3% were under 40 (in 1880 to 1882—54.6%; 1883 to 1885—54.7%). Besides, alcoholism was given as a cause in a number of other cases. Including the cases of delirium tremens, this cause was given in 34.7% in 1886, in 36.2% in 1887 and in 40% in 1888, of all male patients in whose cases a definite cause could be elicited (5935 cases). These figures would be considerably higher if the patients with hereditary mental disease, the simply weak-minded and the few patients not insane were omitted. In this case the figures would be 40.4%, 42.3%, and 44.5% of all male cases in which a cause could be elicited. The increasing importance of alcoholism as an etiological factor is shown by the figures of admissions to the general hospitals of the German empire (not of the state of Prussia only). In the periods 1877–79 there were 12,863; in 1880–82, 13,346; in 1883–85, 26,359; and in 1886–88, 34,767 admissions for chronic alcoholism and mania a potu. At the same time there were admitted to the insane hospitals of the empire for the same causes: 1877–79, 2,856; 1880–82, 3,574; 1883–85, 4,545 patients.—(*Deutsche Med. Wochenschr.*, No. 20, 1892.)

G. J. KAUMHEIMER.

MENTAL DISTURBANCE ACCOMPANYING CIRRHOTIC KIDNEY.—Dr. H. Abegg reports a case in which the mental alteration presented the character of an acute melancholia. The symptoms of kidney disease were well marked. Autopsy revealed a normal brain, but very markedly contracted kidneys. From an analysis of the accessible literature he concludes: 1. Psychical alteration, especially of a depressive

character, has repeatedly been observed in kidney diseases. 2. In rare cases, as in the one reported, the mental disturbance occurring during the course of renal disease can, in all probability, be traced to uræmic intoxication. 3. Mental disorders, in which this relation can be established, have been observed in all the forms of Bright's disease, as well as in other diseases of the kidneys. 4. The diagnosis, "mental disease due to kidney lesion," is only justifiable when undoubted symptoms of uræmia, as vomiting, somnolence, dyspnœa or convulsions are present, and when other causes, including severe nervous heredity are absent. 5. There is no specific form of insanity in renal disease, although melancholia and stupor are the prevalent forms. 6. The prognosis is, as a rule, that of the typical uræmic attack. 7. In cases which have recovered, a strict milk diet has been of favorable influence on the mental disturbance.—(*Berlin. Klin. Wochensch.*, No. 17, 1892.)

G. J. KAUMHEIMER.

PUERPERAL MANIA. — Dr. Elliot thinks the terms "Puerperal insanity," "puerperal mania," and "melancholia of lactation" are misnomers; "insanitas in puerpero," "mania in puerpero," "melancholia ex lactatio" are the terms that should be substituted, since they do not differ clinically from insanity, mania and melancholia as usually observed; the puerperal state simply precipitates them, either through heredity or mental worry before confinement. He gives the history of a case in which he was associated with Dr. Behrend. Patient was thirty-one years of age, this being the sixth confinement. History of hereditary predisposition to insanity on her maternal side. June 2 patient suffered false pains of labor and became very apprehensive and despondent as to termination of her gestation. June 7 delivery was completed. Patient evinced symptoms of religious mania but became quiet under the morphine given. Temperature increased for several days and on June 11 it was 100.5 degrees. There was slight rambling and irrational action. At 1 P. M. patient became maniacal, jumping from bed and attempting to reach front window; she was with difficulty restrained. Chloral hydrate and potassium bromide, each 15 grs., were given for three hours. Condition continued unchanged. June 14 patient presented delirium of an hysterical type. June 14 temperature was 101.82, pulse 120. Elixir of ammonium valerianate and

potassium bromide were ordered. Patient remained in about this condition until June 21, having been given morphine, hyoscine and quinine, besides those remedies already mentioned. At this date the woman's condition was somewhat improved and she took more nourishment; only rambled at intervals. There was no septic condition. At 8 P. M. suddenly collapsed and could not be revived. Died at 9 P. M. of exhaustion.—(*Med. News*, July 23, 1892.)

B. M. CAPLES.

A BACILLUS OF ECLAMPSIA.—Kaltenbach points out the various facts which tend to support the theory of an infectious origin of puerperal convulsions. A number of authors have furnished evidence pointing to this conclusion. Kaltenbach states that the facts in the clinical history of the disease which can be best explained by assuming an infectious or toxic origin are: 1. The occurrence of the trouble at a time when contractions of the uterus are likely to force toxic material into the maternal circulation from the placental site. 2. The coincidence of the several convulsions with a labor pain. 3. Its frequency in twin pregnancies, as opposed to its rarity in hydramnios. 4. Its relations to the nephritis of pregnancy and the danger of diminished urinary excretion. 5. The rarity of a second attack. 6. The favorable influence of evacuation of the uterus. 7. The frequency of nervous and mental sequelæ as after other infections. Under K's. direction, Gerdes has made exact and exhaustive bacteriological examinations of the organs of a woman dead of severe puerperal convulsions. Cultures were made from the lungs, kidneys, liver and the aortic blood. In all cases a growth developed which consisted entirely of a pure culture of a very short, thick bacillus. Its culture showed certain characteristic peculiarities. The bacillus proved refractory to the majority of staining materials. Staining was most successful with a strong alkaline solution of methylene blue in the water bath. The ends of the bacilli were stained, the centres clear. They were found arranged in chains. Injections into mice proved rapidly fatal, clonic convulsions occurring in about an hour, followed by death in stupor in from nine to twenty hours. Relatively large doses of morphine, administered previous to the injection of the culture, prevented the occurrence of convulsions and saved the life of the mammals. This drug, however, only prevents the effects of the germ, but does not inhibit its multiplication in the

body. The rat is quite refractory to this germ, needing large doses. Even then death occurs in stupor without convulsions. The bacilli were found in large numbers in the liver and kidneys of the rat. Rabbits, pigeons and guinea pigs are refractory. In the latter, circumscribed necrotic patches appeared over the entire body, but death did not result. Gerdes does not make any definite claims, but suggests a very careful bacteriological examination of all fatal cases of puerperal eclampsia. He argues that this bacillus, so fatal to rats and mice, cannot be indifferent to the human body.—(*Wien. Med. Blaett.*, No. 21, 1892.) G. J. KAUMHEIMER.

In a later article (Ueber den Eklampsiebacillus, etc., *Deutsche Med. Wochenschr.*, No. 26, 1892) Gerdes sums up as follows: 1. The eclampsia bacillus is the sole cause of puerperal eclampsia and is found in no other disease, and there can be no eclampsia without its presence. The infection proceeds from the uterus, probably from an endometritis existing prior to conception. 2. The convulsions due to other causes, occurring during labor, are to be strictly separated on the basis of the post mortem appearances, from true puerperal eclampsia. 3. Eclampsia is a well characterized disease, strictly limited anatomically. 4. The profound changes found in the organs of eclamptic patients post mortem are not adequately explained by the demonstration of the presence of the specific germ in the body, but are probably due, directly or indirectly, to its toxins.

G. J. KAUMHEIMER.

NERVOUS AND MENTAL COMPLICATIONS OF INFLUENZA.—Dr. Zenner has an article with this title in the *Medical Progress* for August. Some of the most prominent symptoms are headache, backache, pain in limbs, a sense of mental and physical exhaustion, sleeplessness, vertigo, pain in eyes and supra-orbital neuralgia. Other symptoms less common are: irritation of brain or meninges, hyperæsthesia of special senses, convulsions, somnolency or stupor, cerebral and spinal meningitis. A limited number of the following have been reported: myelitis, polio-myelitis, polio-encephalitis, multiple neuritis, hemiplegia, aphasia, paralysis of the muscles of eyes and soft palate, inflammation and atrophy of optic nerves, epilepsy, chorea, glycosuria, angina pectoris, Graves' disease, and various trophic and vaso-motor disturbances. Disturbances of an hysterical or neurasthenic type

are not uncommon. The latter is a nervous complication, most frequently seen by the neurologist. A mental type with depression of spirits and despondency predominates. Prognosis of the mental complications usually favorable; duration short. Symptoms often continue for a long time. Mental disturbances found may be divided into the febrile and post-febrile psychoses. Former assume appearance of ordinary febrile delirium, a semi-conscious dream-like state with hallucinations and great restlessness and insomnia. This is often of short duration, though it may run into post-febrile insanity. Most common of latter is melancholia. There are all degrees of this disturbance, from the mental depression of neurasthenia to deepest melancholia, in which acts of desperation, suicide, etc., are attempted. Less frequently the disease assumes the form of mania, with exalted mood, rapid speech and actions, or a semi-conscious state like that of febrile delirium, or extreme mental confusion, or an apparent blending of several forms of insanity. Author thinks the prognosis of the nervous disturbances of influenza is generally favorable.—(*Med. Progress*, Aug., 1892.)

B. M. CAPLES.

DIATHETIC INSANITIES. — Mabilie (*Jour. de Méd. de Bordeaux*, June 26, 1892) concludes that diathetic conditions may produce all types of insanity.

J. G. KIERNAN.

HYSTERICAL ANÆSTHESIA, according to Janet (*Arch. de Neur.* May, 1892) is a psychosis, not a neurosis; a disorder of the personality.

J. G. KIERNAN.

CRIMINALITY AND DEGENERACY.—Morandan de Monteyel claims (*Arch. del 'Anthrop. Crim.*, May, 1892) that the criminal is not a degenerative lunatic but an atavism; a being who has reverted to the savage state. Criminality, in Morandan's opinion, is in reverse ratio to the degree of degeneracy. Crime, in the strictest sense of the term, is rarer among the insane than the sane. Dortal (*These de Paris*, 1892) claims, on the other hand, that the born criminal of the type just described does not exist. Crime may be an epiphenomenon in the lives of epileptics, lunatics, beings more or less degenerate, or even from such degeneracy. Such degeneracy gives the stigmata which may be found alike in criminals, paupers, deaf-mutes, epileptics, hysterics and lunatics.

J. G. KIERNAN.

A PSYCHOLOGICAL VIEW OF CRIME.—Dr. A. Van Hoff Gosweilder has an article in the *Medical Record* of Jan. 30 on the above subject in which he quotes numerous authorities to sustain his views. He thinks there is need of studying the organism and its environment, and says the educated mind needs little to be convinced that the cause of crime and inebriety is often social and psychical, and therefore quite suggestive of a psychical remedy, which, as a matter of treatment, is of great import to society. Prevention, destruction and reformation are the requisites in dealing with crime, but the first is the most practicable and valuable. Science and intellectual honesty must be brought to the aid of sentiment before alienists, philanthropists and governments can possibly reach the best results.

B. M. CAPLES.

DR. J. G. KIERNAN, of Chicago, has a very interesting article in the April *Alienist and Neurologist* on "Art in the Insane." He not only treats of those peculiar efforts at artistic work that are sometimes observed in the insane in asylums, but he also treats of the mentality of certain well-known artists, such as Turner. We confess that the remarks upon Turner's mental condition are somewhat of a revelation to the writer hereof, but if the revelation made is correct, this great artist must have been an imbecile with only the special talent that is sometimes observed in this class. The article is very interesting and instructive and treats of a subject that has heretofore been too much neglected. Dr. Kiernan has the faculty of discovering pearls in neglected corners of medical literature and this essay is no exception.

THE INSANE IN EGYPT.—Dr. Frederick Peterson has an interesting article on this subject in *The Med. Record* of May, 1892, which is the result of his personal observation. He calls attention to the fact that New York city and Brooklyn together, with two million inhabitants, have asylums that accommodate over seven thousand three hundred insane; whereas Egypt, which has six million inhabitants, has but one asylum, and this contains two hundred and fifty patients. While making due allowance for the Mohammedan dislike to institutions, and their treating insane as holy persons, he still concludes that the percentage of insane in Egypt is vastly lower than anywhere else in

the world. The first asylum in Egypt was founded in 1280, A. D., and the patients were treated with kindness. Music, dancing and light comedy were features of the treatment. In 1800 Napoleon found patients there in chains, and made some improvements. Dr. F. M. Sandwith, who visited the lunatic asylum in 1883, found the most shocking condition of things. The patients were in chains and everything else in the institution was in keeping. Dr. Sandwith took charge of the institution, introduced a system of kindness, furnished competent clerks, and, in fact, completely transformed the institution architecturally and in its general management. At the present time restraint is rarely employed. The patients' apartments are neat and clean and the attendants are kind and attentive. The doctor found that in quite a proportion of the insane the insanity was due to *cannabis indica*. They used the drug by smoking. The earlier mental symptom is a marked and increasing timidity and often results in chronic insanity, dementia or death. General paralysis is very rare and it has yet to be proven that it even exists among Egyptians. It is a curious fact that just across the sea from Egypt, in Greece, general paralysis is very common. The doctor thinks the Cairo asylum would be a good school for the study of craniometry and racial characteristics. Among the patients he saw there were Egyptians, Copts, Nubians, Soudanese, Abyssinians, Turks, Greeks, Syrians, Circassians, Jews and Bedouins.—*Med Record*, May 21, 1892.)

PERSECUTIONAL DELUSIONS CURED BY SUGGESTION IN THE WAKING STATE.—Dr. Andrieu (*Revue d. l'Hypnotism*, May, 1892) reports the case of an officer who imagined that one of his colleagues had hypnotized him and caused him to commit certain grotesque acts. Andrieu, finding the subject not hypnotizable, suggested to him in the waking state that he was not hypnotizable, whereupon the notions disappeared. In all probability these delusions remain in abeyance but will take another form.

J. G. KIERNAN.

INSOMNIA IN AN INFANT.—Dr. C. H. Hughes reports the case of a five weeks infant which lay awake with eyes wide open, gazing about in placid contentment throughout the night unless sleep were induced by hypnotics. This insomnia continued for five weeks, when it became a tran-

quail sleeper. Sleep was induced by five-grain doses of bromide of sodium combined with three-grain doses of chloral. The doctor concludes from this case that the exhaustion theory of sleep is not tenable. This infant slept in the beginning of its life but became sleepless after a period of rest and without excitation provocative of insomnia. He believes the insomnia was due to inherent instability of the nerve tissue.—(*Alienist and Neurologist*, July, 1892.)

REVIEWS, NEW BOOKS, ETC.

A DICTIONARY OF PSYCHOLOGICAL MEDICINE, giving the Definition, Etymology and Synonyms of the Terms used in Medical Psychology, with the Symptoms, Treatment and Pathology of Insanity, and the Law of Lunacy in Great Britain and Ireland. Edited by D. Hack Tuke, M. D., LL. D., Examiner in Mental Physiology in the University of London, Lecturer on Psychological Medicine at the Charing Cross Hospital Medical School, Co-editor of the *Journal of Mental Science*. P. Blackiston, Son & Co., 1012 Walnut St., Philadelphia, Pa.

This work, long promised, has just appeared, and we think it will more than fulfill the most sanguine expectations. In fact, it is safe to say that this is the most remarkable work upon the subject of psychological medicine which has ever been issued. Everything is considered fully, though briefly, as is proper in such a work, and if anything has been omitted we have not yet found it. This is a work that will be interesting alike to the specialist and to the general practitioner. To the specialist, because it contains in a brief form all the principal facts with which he has to deal; to the general practitioner because it gives him in a comprehensive shape an insight into the vast knowledge of the specialist. The first volume opens with an historical sketch of the insane by Dr. Tuke, the editor. This chapter furnishes a bird's-eye view of the subject, and is itself worth the price of the volume. Among the many and noted contributors to the work are: Clifford T. Allbutt, M. D., Benj. Ball, M. D., Thos. Barlow, M. D., Fletcher Beach, M. B., C. E. Beevor, M. D., F. G. Blandford, M. D., Alex. Bruce, M. D., Thos. Buzzard, M. D., John B. Chapin, M. D.; J. M. Charcot, M. D., Sir Andrew Clark, M.

D., T. S. Clouston, M. D., Edw. Cowles, M. D., H. H. Donaldson, Ph. D., Pliny Earle, M. D., Victor Horsley, Joseph Jastrow, Ph. D., M. Legrain, M. D., Chas. Mercier, M. B., Wm. Orange, M. D., Th. Ribot, James Sully, Aug. Tamburini, M. D., D. Yellowlees, M. D. No extended review would do justice to this work. We observe that not only those subjects that immediately relate to psychological medicine are discussed, but all those that by any means are indirectly related to it. For instance, we observe the following: Thermo-anæsthesia; thyroid gland in relation to mental disease; ticklishness, and the phenomena of tickling; gall stones in the insane; salivation; neurasthenia; neuralgia; night terrors of children; etc., etc. The volumes contain articles on the insane in the various countries, and a full account of the development and organization of insane institutions everywhere and their present condition. We predict for this work a large sale in the United States. It is a library in itself. In practice it is just the volume that every progressive practitioner should have. He will find almost every question that may arise in regard to psychology answered in this volume, and whether it be in regard to the symptoms or treatment of disease, or to definition of terms of the physician in dealing with the insane, or to the legal responsibility or the legal rights of the insane, he will find these and kindred questions fully discussed and explained. We congratulate Dr. Tuke upon the successful completion of this great enterprise, which will deservedly add to his already great fame.

GRIESSINGER'S PATHOLOGIE UND THERAPIE DER PSYCHISCHEN KRANKHEITEN FÜR AERZTE UND STUDIRENDE. Fuenfte Auflage, gaenzlich umgearbeitet und erweitert von Dr. Willibald Levinstein-Schlegel, Dirigirender Arzt der Heil- und Pflegeanstalt "*Maison de Sante*," Schoenberg-Berlin W. Mit vier Abbildungen und einer Figurentafel. 1,100 pp. Aug. Hirschwald, Berlin, 1892. The name and works of the celebrated and epoch-making alienist, Griesinger, are well known to every psychiatrist. But as time rolled on his work became, though a master work, antiquated in some of the chapters and behind the times in others. The reviser has sought to fill in these defects and repair the ravages of time to bring it down to the requirements of a modern work upon this subject. This task the reviser is abundantly able to fill, he being the warm and close friend

of the genial author. The holes and weak places of the edifices are filled in, wherever a defect was perceptible it was remedied, and the whole covered with a fresh and bright dressing. The noble columns of the original remain untouched. The original text, in its classic and beautiful form, is still the same, yet many chapters required to be rewritten and additions made in order to keep the work in touch with the advances of modern psychiatry and the views of to-day. The literature, up to the middle of 1891, has been used as much as possible, and from this period only the most important text books were considered for lack of time and space. The basis of the revision was formed by the text books of modern psychiatry, at the head of which stand those of v. Krafft-Ebing, Schuele, Arndt, Emminghaus, Kraepelin, as well as the works of Salgo, Savage-Knecht, Meynert, Fuerstner, Wernicke, Sander, Jolly, etc. It was not the intention of the author to give psychiatry in a new light, but to bring the doctrines nearer to practical use. To Kahlbaum is due the credit of building up a new classification of mental diseases according to these teachings. That which was taken from the work is scarcely to be noticed. The genial spirit of the writer and his soaring diction still remain as in the original work. The reviser has indeed ably succeeded in his undertaking, for the book is remarkably complete, full of copious notes and additions, and one to which one may turn with great satisfaction. Histories of cases and striking examples are to be found on every page. Every state is treated of even into its smallest details.

F. H. PRITCHARD.

TAFELN ZUR ORIENTIRUNG AN DER GEHIRNOBERFLÄCHE DES LEBENDEN MENSCHEN BEI CHIRURGISCHEN OPERATIONEN UND KLINISCHEN VORLESUNGEN.—Von Professor Dr. Albert Adamkiewicz (Cracow, Poland); mit Deutschen, Französischen und Englischen Text. Vienna and Leipsic. Wilhelm Braumueller, 1892. This atlas consists of four very good plates showing the distribution of the cerebral vessels, the situation of the convolutions, sulci, sutures, etc. The plates are colored and life size, the cerebral vessels being distinct and well portrayed. The first gives a front view of the brain, the skull cap being removed in one half by a section over the eyes and through the vertex. The second presents a side view (left) of the cerebrum and cerebellum, the meninges being removed. The third exposes the occi-

pital region, while the fourth places the entire vertex, with its vessels, lobes and sulci before the eye. All the convolutions are marked by differently colored letters in order that they may be distinguished by reference to a descriptive table. The plates are preceded by two pages of remarks by the writer in French, German and English, upon the circulation of the blood in the brain, cerebral pressure, etc. The atlas will be found of service in all surgical operations upon the brain, as well as to the general physician, physiologist and alienist.

F. H. PRITCHARD.

ANNUAL OF THE UNIVERSAL MEDICAL SCIENCES.—A yearly report of the Progress of the General Sanitary Sciences Throughout the World. Edited by Charles E. Sajous, M. D., and Seventy Associate Editors, assisted by Two Hundred Corresponding Editors, Collaborators and Correspondents. Illustrated with Chromo-Lithographs, Engravings and Maps. Volume II, 1892. The F. A. Davis Company, Publishers, Philadelphia, New York, Chicago and London. Australian Agency, Melbourne, Victoria. This splendid publication continues to maintain its reputation. It supplies just what every progressive physician needs—a condensed statement of the medical progress of the world for the year. The profession owes a debt of gratitude to Dr. Sajous for undertaking this work. The department of Diseases of the Brain by Dr. Landon Carter Gray of New York is especially interesting. It is impossible to review this excellent section, as it is very much condensed. We observe with pleasure that Dr. Gray has utilized some of the illustrations devised by Dr. Sanger Brown, for this journal. The department of Diseases of the Spinal Cord, by Dr. W. R. Birdsall, and the department for Peripheral Nervous Diseases and General Neuroses, by Dr. Philip Coombs Knapp, are excellent. Dr. George H. Rohé, Supt. of the Insane Hospital at Cantonville, Md., has written the section on Mental Diseases, and it seems to be a thorough resumé of the annual literature of the subject. We wish again to commend this excellent publication to the profession at large. It furnishes a bird's-eye view of the world's work and we do not see how any progressive physician could be willing to do without it.

A MANUAL OF AUTOPSIES.—By I. W. Blackburn, M. D., P. Blackiston, Son & Co., 1012 Walnut St., Phila., Pa.

By an oversight, notice of this volume was omitted in the

June number of the Review The volume was prepared in response to a request of the Association of Superintendents of Insane Hospitals, made at their annual meeting in 1890. The author is pathologist to the Government Hospital for the Insane at Washington, D. C., having been selected for this position by the able superintendent, Dr. W. W. Godding. It contains full instructions for making and recording autopsies, not only in relation to the nerves, but to the entire body. It also contains a "Table of Weights" of all the organs. The remainder of the volume is devoted to methods of preparing tissues for microscopical examination, which, though brief, contains the necessary information. The book is liberally illustrated and is one which every progressive physician should have. Dr. Blackburn is to be congratulated for having prepared so excellent a manual, and we hope it will have a large sale.

THE NATIONAL POPULAR REVIEW, AN ILLUSTRATED JOURNAL OF PREVENTIVE MEDICINE AND APPLIED SOCIOLOGY FOR THE PROFESSION AND THE PEOPLE.—This is a new periodical conducted by Dr. P. C. Remondino, of San Diego, Cal. We cannot speak too highly of this publication, which is devoted to Sociology and Preventive Medicine chiefly. It is ably and charmingly edited, and furnishes instructive and fascinating reading. Every physician ought to subscribe for it, and we are sorry for those who will not afford \$2.50 for the amount of valuable material that they will get in this journal. Among the notable articles in the August number, "Therapeutical and Moral Effect of Music on Man", and "Marriage as a Sociological and Disease Factor", are especially worthy of notice.

THE SCALPEL.—This is a new periodical conducted in the interest of the Chicago College of Physicians and Surgeons. It furnishes information concerning the excellent work that is being done in that college. The article by Dr. Ohlmacher concerning the class work in embryology is particularly interesting, and illustrates the important methods of teaching at the present time. We congratulate the publishers of this new journal upon the excellent character of the articles in the first number. We have also received an announcement of the Chicago College of Physicians and Surgeons for the coming year. This college, though comparatively

youthful, has already taken a high stand, and is for advanced medical instruction. The corresponding secretary is Dr. Bayard Holmes.

THE CHICAGO CLINICAL REVIEW.—This is the first number of a new periodical edited by Drs. George Henry Cleveland and Albert I. Bouffleur. We notice among the associate editors that there are several alienists, namely; Drs. H. M. Lyman, D. R. Brower, Sanger Brown and Archibald Church. If the first number of this journal is a sample of what it will be in the future we predict that it will be a great success. It has a number of original articles and some clinical lectures delivered in the hospitals of Chicago by physicians in various colleges. We congratulate the editors upon the very creditable appearance of their journal and wish them all success.

Dr. Senn has discarded the use of the elastic bandage in rendering a limb avascular and empties the blood-vessels by simply elevating the member. He believes that the use of the elastic bandage is not only superfluous, but in all pathological conditions, especially, is very dangerous, as its application from the distal part to and over the diseased point to the proximal side may force the pathological process into the general circulation, which might be the cause of a dissemination of the process. When the limb is rendered avascular by elevation he interrupts the circulation at once by sudden proximal compression. He avoids linear compression by using a broad constrictor, and protects nerve structures by using a thick layer of gauze under the constrictor when its superficial part cannot be avoided.—*Chicago Clinical Review*.

GERMAN LITERATURE.

KLEMPERER.—*Grundriss der klinischen Diagnostik*. 3d Edition. Berlin. A. Hirschwald.

TRANSACTIONS of *Tenth Internat. Med. Congress*, 5 vols. Volumes and Sections can be procured separately. *Sect. 9. Neurology and Psychiatry*. Berlin. A. Hirschwald.

V. KRAFFT-EBING.—*Psychopathia sexualis*. 7th Edition. Stuttgart. F. Enke.

FLECHSIG.—*Handbuch der Balneotherapie*. 2d Edition. Berlin. A. Hirschwald.

ROSENBAUM.—*Warum müssen wir schlafen. Eine neue Theorie des Schlafes*. Berlin. A. Hirschwald.

GOWERS.—*Manual of Diseases of the Nervous System*. Authorized German Edition, by Grube. Bonn. F. Cohen.

WERNER.—*Die Paranoia*. Stuttgart. F. Enke.

V. BABES AND P. BLOCQ.—*Atlas der Pathologischen Histologie des Nervensystems*.—By a number of eminent Continental Neurologists. Berlin. A. Hirschwald.

PAGE.—*Railroad Injuries in their Forensic and Clinical Relations*. Authorized Translation by Placzek. Berlin. S. Karger.

LEUBUSCHER UND ZIEHEN.—*Klinische Untersuchungen über die Salzsäureabscheidung des Magens bei Geisteskranken*. Jena. Gustav Fischer.

BECKER.—*Anleitung zur Bestimmung der Arbeits- und Erwerbsunfähigkeit nach Verletzungen*. Berlin. T. C. F. Enslin.

EDINGER.—*Zwölf Vorlesungen über den Bau der Nervösen Centralorgane*. 3d Edition. Leipzig. F. C. W. Vogel.

EWALD, R.—*Physiologische Untersuchungen über das Endorgan des Nervus Octavus*. Wiesbaden. J. T. Bergmann.

SCHRENCK-NOTZING.—*Die Suggestions-Therapie bei krankhaften Erscheinungen des Geschlechtssinnes*. Stuttgart. F. Enke.

LIÉBAULT.—*Der künstliche Schlaf und die ihm ähnlichen Zustände*. German Edition by O. Dornblüth. Leipzig and Wien. F. Deuticke.

SOLLIER.—*Der Idiot und der Imbecille*. Translated from the French by Paul Brie. Preface by Pelman. Hamburg. H. Voss.

LOMBROSO AND LASCHI.—*Der politische Verbrecher und die Revolutionen in anthropologischer, juristischer u. staatswissenschaftlicher Beziehung*. German Edition by H. Kurella. New York. Gustav Stechert.

MARCHAND.—*Beschreibung dreier Mikrocephalen-Gehirne nebst Vorstudien zur Anatomie der Mikrocephalie*. Leipzig. W. Engelmann.

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FREUND.—*Schemata zur Eintragung von Sensibilitätsbefunden*. Berlin. A. Hirschwald.

RINGIER.—*Erfolge des therapeutischen Hypnotismus in der Landpraxis*. Munich. J. F. Lehmann.

OPPENHEIM.—*Die Traumatischen Neurosen, etc.* Second edition. Berlin. A. Hirschwald.

WILBRANDT AND SAENGER.—*Ueber Störungen bei functionellen Nervenleiden.* Leipzig. F. W. C. Vogel.

KRONTHAL, P.—*Schnitte durch das centrale Nervensystem des Menschen.* Berlin. Speyer and Peters.

ARBEITEN aus der psychiatrischen Klinik zu Breslau. I. *Das Hemisphärenmark des menschlichen Grosshirns. 1. Der Hinterhauptslappen.* By Dr. Heinrich Sachs, with a preface by Prof. Wernicke. Leipzig. George Thieme.

FLEINER.—*Ueber den heutigen Stand der Lehre von der Addison'schen Krankheit.* (Volkmann's Sammlung Klin. Votr. Neue Folge, No. 38.) Leipzig. Breitkopf u. Haertel.

D. FERRIER.—*Vorlesungen über Hirnlocalisation.* Translated by Weiss. Wien. F. Deuticke.

TH. KIRCHHOFF.—*Lehrbuch der Psychiatrie.* Wien. Fr. Deuticke.

BELDAN.—*Ueber die Trunksucht u. Versuche ihrer Behandlung mit Strychnin.* Jena. G. Fischer.

M. BERNHARDT.—*Ueber Franklin'sche oder Spannungsströme vom elektrodiagnostischen Standpunkt.* (Volkmann's Samm. Klin. Votr. Neue Folge, No. 41.) Leipzig. Breitkopf u. Haertel.

W. WALDEYER.—*Ueber einige neue Forschungen im Gebiete der Anatomie des Centralnervensystems.* Leipzig. G. Thieme.

H. BERNHEIM.—*Neue Studien über Hypnotismus, Suggestion u. Psychotherapie.* Translated by S. Freud. Wien. F. Deuticke.

MOLL.—*Ist die Electrotherapie eine wissenschaftliche Heilmethode?* Berliner Klinik, No. 41. Berlin. Fischer's Medic. Buchhandlung.

PAMPHLETS AND REPRINTS.

Sulphide of Calcium, or Calx Sulphurata in Tonsillitis.—By Frank P. Norbury, M. D.

Epilepsy.—Norbury.

A Case of Abscess of the Temporo-Sphenoidal Lobe, and of the Middle Lobe of the Cerebellum.—Norbury.

Athetosis Bilateralis.—Norbury.

Practical Cerebral Localization.—Norbury.

On Certain Peculiarities of the Knee-Jerks in Sleep in a Case of Terminal Dementia.—By William Noyes, M. D.

Clinical Lecture Delivered at the Second Annual Meeting of the Association of Military Surgeons of the U. S.—By N. Senn, M. D.

Report of an Operation for Removal of the Gasserian Ganglion.—By Emory Lanphear.

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Kidney Disease and Insanity.—By George T. Tuttle, M. D.

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A New Operation for the Speedy Ripening of Immature Cataracts.—By Boerne Bettman, M. D.

Concealed Pregnancy: Its Relation to Abdominal Surgery.—By Albert Vander Veer, M. D.

Old and New Ideas With Regard to the Work and the Organization of Institutions for the Insane.—By Richard Dewey, M. D.

Fiftieth Annual Announcement of The Rush Medical College, Chicago, for 1892-3.

University of Pennsylvania: Catalogue and Announcement for Session 1892.

Northwestern University, Chicago Ill.: Circular of Information for 1892-93.

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The Johns Hopkins Hospital, Baltimore. Lectures, Courses of Practical Instruction and Clinics for Graduates in Medicine, 1892-93.

Financial Statement of the Minnesota State Correctional and Charitable Institution from August to April, 1892.

Forty-ninth Annual Report of the Utica State Hospital at Utica, for the Year Ending Sept. 30, 1891. Jas. B. Lyon, State Printer, Albany.

Seventy-eighth Annual Report of the Trustees of the Massachusetts General Hospital and McLean Asylum, 1891. L. Barta & Co., Printers, 148 High street, Boston.

Annual Report of the Milwaukee County Hospital for the Year Ending Dec. 31, 1891. Ed. Keogh, Printer, 386 and 388 Broadway, Milwaukee, Wis.

Annual Report for the Year Ending Feb. 28, 1892, of St. Luke's Hospital, St. Paul, Minn.

Catalogue for the year 1891-92, and Announcement for

the Year 1892-93 of The College of Medicine and Surgery, University of Minnesota.

Forty-sixth Annual Report of Starling Medical College, Columbus, O. Journal-Gazette Printing House.

Annual Announcement and Catalogue of the Baltimore Med. College. Printed by King Bros., 123 E. Baltimore St., Baltimore, Md.

Hospital Bulletin of the Second Minnesota Hospital for Insane. Press of The Record and Union, Rochester, Minn.

MISCELLANEOUS.

PRIZE ESSAYS—ON THE ACTION OF ALCOHOL AND ITS VALUE IN DISEASE.

The American Medical Temperance Association, through the kindness of J. H. Kellogg, M. D., of Battle Creek, Mich., offers the following prizes:

1st. One hundred dollars for the best essay "*On the Physical Action of Alcohol, based on Original Research and Experiment.*"

2d. One hundred dollars for the best essay "*On the Non-Alcoholic Treatment of Disease.*"

These essays must be sent to the Secretary of the Committee, Dr. Crothers, Hartford, Conn., on or before May 1, 1893. They should be in type-writing, with the author's name in a sealed envelope, with motto to distinguish it. The report of the committee will be announced at the annual meeting at Milwaukee, Wis., in June, 1893, and the successful essays read.

These essays will be the property of the association and will be published at the discretion of the committee. All essays are to be scientific, and without restrictions as to length, and limited to physicians of this country.

Address all inquiries to

T. D. CROTHERS, M. D.,
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THE REVIEW

OF

INSANITY *&* NERVOUS DISEASE.

A QUARTERLY COMPENDIUM OF THE CURRENT LITERATURE
OF NEUROLOGY AND PSYCHIATRY.

EDITED BY

JAMES H. McBRIDE, M. D.,

MILWAUKEE, WIS.

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THE REVIEW OF INSANITY AND NERVOUS DISEASE.

DECEMBER, 1892.

ITCHING OF CENTRAL ORIGIN, OR BRAIN ITCH.

By DR. L. BREMER, St. Louis.

Itching is so frequently observed as a complication in nervous and mental diseases that it deserves, in my opinion, a more than passing notice. Dermatologists have long since recognized the existence of what they have collectively styled neuroses of the skin, or dermatoses, but, to my knowledge, they have failed to make a clear distinction between the peripheral and the central forms of these affections.

Before approaching the subject-matter itself, a brief retrospect of the accepted neurophysiological notions regarding the various qualities of sensations I think to be in order. The brain, as is now well established, is primarily and essentially a sensitive, and secondarily, a reflex organ. The various qualities of sensation coming to this receiving and perceiving organ from the outer world are caught up by the cortical pyramidal cells, whose protoplasmic processes are comparable to tentacles, in the language of Meynert.

Within the cells are stored up the impressions thus gathered as memory images, which are of a sensorial, sensory, or (by reflex) motor character. The several qualities of such impressions are not, as is well understood, scattered promiscuously over the brain, but there are distinct and circumscribed patches of the cortical surface where memory images of the same quality are stored up. Thus there are, in addition to the well-known motor and sensorial areas of

vision and audition, others, where memory images of common sensation, especially such as originate in the skin and neighboring mucous membranes, are stored, although the exact location of these centers is still a matter of dispute.

Now, it cannot be presumed that there are special nerve fibers gathering up and conveying itching impressions from the periphery to the cortex, the fact being reasonably well established that itching is simply a perverted function of the nerves of common sensation, the same as pain, pricking, formication, etc. Unfortunately, as remarked before, the localization of common (and hence modified and perverted) sensation is still a matter of doubt. The most probable of all hypotheses at present, is that the sensory area of the several parts of the body is around or near the respective motor centers, and I claim that as there is a central or cerebral pain, a proposition which I shall discuss at length later on, so does there exist a central or cerebral pruritus.

In order, however, to gain an adequate conception of the central, it will be necessary to briefly consider the mechanism of peripheral itching, or rather those dermatoses in which a peripheral nerve irritation is the pathogenetic factor of this symptom.

The anatomical seat of peripheral pruritus has been laid by almost all writers on the subject in the touch corpuscles. That the seat of this sensation, like all the others, is somewhere in the true skin and not in any of the underlying tissues there can be no manner of doubt, because the experiments of Weber have settled this matter definitely. But, to my mind, it is highly improbable that the tactile bodies should be the organs in which and through which the sensation of itching should originate, they being in our days generally regarded as sensory terminal organs by which pressure and weight are estimated. It is much more probable that the free end-filaments in the epithelial layer of the skin should be regarded as the seat of disturbance in peripheral pruritus. That it does arise here under certain

conditions is proven by the familiar example of itching in granulating wounds. The granulations are devoid of sensation as long as they are not yet covered with epithelium, but, as soon as the regenerative process has begun and a slight film of epithelial layer (together with newly formed nerve filaments) spreads over the granulations, the process of repair is generally announced by an itching sensation, and so far as my observation goes, this itching is not only felt in the neighborhood of the defect but is also located by the patient in the newly-forming epithelial cover, which would go to show that the growth of the delicate nerve-filaments that supply the epithelial layers with sensation keeps equal pace with the growth of the latter, and that in them resides, besides the faculty of general sensation, also that of itching. Another reason why the touch-corpuscles are unlikely to be the organs through which itching is felt, is the fact that those places where these bodies are known to abound most, in the tips of the fingers, toes, and in the lips, etc., are by no means the seat of predilection for pruritus, but are, on the contrary, rather exempt from it.

Returning to the subject of peripheral dermatoses we may legitimately set down herpes zoster as a type of those neuropathic skin affections for which a well defined topographical and anatomical basis exists. The several itching skin diseases which before Hebra were comprised as prurigo, may also, in a sense, be regarded as peripheral affections of the nerves of common sensations, the mechanism of their production being, according to some, the pressure on the terminal sensory filaments by an exudation (prurigo papule) or, as Anspitz assumes, a tonic spasm of the smooth muscle fibers in the skin, the *arrectores pilorum*. If the latter explanation were admissible, there would be a combined neurosis of a sensory and motor character. It is very questionable, though, whether in such cases there exists primarily such a spastic contraction entailing the hypertrophy of the *arrectores* which is observed in the latter stages of prurigo.

The same mechanism, that of compression, of the sensory nerve-endings is assumed by Unna to underlie the itching in urticaria. This observer thinks that the wheals are due to an elastic œdema caused by an obstruction of the efferent lymph channels, arising under the command of the nervous system. A congestion, thought to be due to a contraction of the veins, is, in his opinion, responsible for this obstruction.¹

The theory of obstruction and compression as explaining the sensation of itching is thought to be strengthened by the experiment of an hypodermic injection of water under the skin. This in some persons causes itching, a fact, however, which admits of other interpretations than that of compression, notably that of chemical irritation. The irritating action on the tissues of water, especially distilled water, is well established. It is indeed more probable that in all, or nearly all cases of itching, there is an irritating or toxic element in the fluids surrounding the terminal nerve filaments. This is notably the case in eczematous affections.

Hebra referred all itching sensations to a slowing of the blood-current in the capillaries of the skin because the production of an hyperæmia, with an attending acceleration of circulation, but especially a local depletion produced by injuries of the vessels due to scratching, alleviates or stops itching.

Supposing that an hyperæmia and a consequent retardation of the blood's flow were the cause of itching, the congestion could be only a venous one, and in this case, too, the toxic origin would suggest itself, the waste products, or,

1. It is very difficult and, to my thinking, physiologically impossible to conceive, that a separate, or even a preponderating spastic contraction of the veins should take place under the command of the nervous system, i. e. the vaso-motor center or centers. Admitting that the veins possess a tonus similar, though, of course, much weaker than the arteries, a proposition which is denied by some physiologists, it is inconceivable how a separate contraction could arise; the stimulation of the vaso-motor centers, if it does cause a contraction at all, will do so primarily and chiefly in the arteries, the veins, owing to their feeble muscular coat and an insignificant supply of nerves, participating in the contraction in a subordinate degree. It may be remarked here, that the statement generally met with in books on general anatomy or physiology, viz; that only the larger veins are accompanied by nerves, is incorrect. All blood-vessels, even the capillaries are provided with nerves.

possibly elements of a specific irritating character, giving rise to the itching.

This toxic influence of the fluids bathing the sensory nerve terminations as an essential factor in itching seems to be beyond doubt in certain dyscrasiæ (jaundice, Bright's disease, diabetes, general carcinomatosis, etc.). But it is not in all patients affected with these diseases that we find itching as a complication; in the most intense forms of icterus, e. g. in which the skin is saturated with bile-pigment, and where we would expect the most intense itching, if it were true that this is caused by the deposition and consequent irritation of the coloring principle of the bile, pruritus is sometimes utterly absent. This would point to the necessity either of admitting that a poison is at work whose nature we ignore, or of calling to our aid in the understanding of the phenomenon once more the makeshift, "individual predisposition," however distasteful this may be to the mind of the pathologist.

The admittance of such pruritic predisposition, an essential pruritus, or itching independent of either a demonstrable or molecular skin affection, leads up to the main question, the subject matter of the present article, central or cerebral itch.

As remarked above, the question of the possibility of a central origin of pain is a very old one and seemed up to a short time ago in dispute. The current opinion of neuro-pathologists on this subject seemed to be that, since lesions in the substance of the brain or spinal cord itself rarely were accompanied with painful sensations, whereas morbid conditions of the covering membranes of those organs were almost always attended by pain, the cerebro-spinal substance itself must needs be devoid of feeling.

Moreover, the unanimous verdict of the physiological experiments on the central nervous system was that the nervous substance itself lacked absolutely any trace of sensibility. Since the sort of experiment seemed in a measure to have determined and settled the question, the clinical neurologist

acquiesced in the result, though inadequate and far from decisive, of physiological investigation. But the observations made on experiments performed by nature, i. e. disease, did not tally in many instances with notions based on physiology. Edinger¹ was, to the writer's mind, the first to demonstrate on anatomical findings the central origin of pain in a certain class of cases. He cites a case of Greiff, in which there were, in addition to a left-sided paresis and chorea, hyperæsthesia and tearing pains in the left arm and some in the left leg. The principal post-mortem finding consisted in softened foci in the right thalamus. Edinger's own case, the only one in which an accurate study of clinical symptoms is followed by a minute and scrupulously conducted microscopical examination, showed during life, as a result of an apopleptic attack, paralysis of the right arm and leg, accompanied later on by slight athetosis, and at all times excruciating pains, in consequence of which the patient suicided. The autopsy revealed a softened focus in the external nucleus of the left thalamus opt. and in a small portion of the pulvinar. There was also descending degeneration of the lemniscus. Edinger arrives at the conclusion that hyperæsthesia and pain were produced, not by an involvement in the pathological process of the caudal portion of the internal capsule (that part of it which corresponds to about the middle third of the thalamus, and which is the universally recognized sensory tract, giving rise to peripheral pain, similarly to the production of pain by irritation of a nerve in any part of its course, the painful sensations being projected to the sensory end-organs of the periphery). Had the sensory capsular tract been pathologically changed, there would have been an anæsthesia, instead of an hyperæsthesia. There is, then, no doubt in Edinger's mind (and a careful perusal of the article has convinced the writer of the correctness of his conclusion) that there may be pain of central origin, and that it is reasonable to

1. Edinger. Gibt es central entstehende Schmerzen? Deutsche Zeitschr. f. Nervenheilk. H. 3 und 4.

infer from the anatomical findings in his case that even a cortical pain exists. From purely clinical observation it would seem that the latter proposition is very plausible and almost self-evident; for how could the pain of the hypochondriac or the hysterical, or that of hypnotic suggestion be understood or explained, unless the theory of cortical origin be invoked? The aura, too, in some cases of "cortical" epilepsy can not be explained on any other ground than that of a projection of a cortical irritation on a corresponding area of the skin.

The abnormal sensation constituting the aura may be an itching, instead of pain, burning, pricking, constriction, etc. Assuming that all epilepsies are cortical in origin, a theory which is constantly gaining ground, this local itching representing an epileptic aura would also furnish an irrefutable proof of the cerebral resp. cortical origin of itching.

I have seen more than one neurasthenic person, who, when reading, experienced an intense itching in some part of the scalp, by preference on top of the head; in one case this itching was often substituted by a pricking, at others a painful feeling showing the intimate relationship, if not, at bottom, the qualitative identity of these sensations.¹

Persons afflicted with this troublesome affection are always neurotic or psychopaths. Most of them can by sheer will-power produce itching in the parts usually and principally attacked by concentrating their attention on those spots, as Dr. John Hunter, a neurasthenic *par excellence*, could cause a pain in his big toe by thinking of the gout as invading that member.²

Again, it is a matter of common observation that some persons on hearing about, or seeing vermin, will begin to

1. That itching may, and probably is, a modified, i. e. lesser pain, seems to me a justifiable conclusion, derivable from the every day observation that the induction of pain, by scratching, for example, but also by whipping or otherwise injuring the affected parts, will lessen or stop it.

2. This effect of the mind on the periphery of the body is seen in all itching affections with demonstrable changes, e. g. eczema, prurigo, urticaria. There is the often emphasized vicious circle in these maladies. The peripheral sensation impresses the cortical cells in such a manner that under the influence of some exciting cause these morbidly impressed cells will cause itching even after the anatomical changes originally responsible for it, have ceased to exist.

scratch themselves to relieve itching. This is evidently brought about by an association process in the hemispheres.

The central origin of pruritus is in such cases beyond doubt. It has, furthermore, been often observed that psychical pain occasioned, for instance, by the death of friends, relatives or parents, is attended by localized or general, more or less intense itching. In fact, pruritus is a frequent complication in mental disease, that taxes the ingenuity and, unfortunately, often baffles the efforts to relieve, of the psychiatrist.

To my mind, it is quite evident that in such cases an abnormal nutritive and functional process having its seat in the cortex is projected from this organ to the skin, or such areas of it which correspond to the several cortical areas innervating them. If we look for an analogue, this most powerful lever to our understanding, the central excitations of the sensorial organs (of vision, hearing, smell and taste) readily present themselves for comparison.

Not only the subcortical centers of perception, but also the higher cortical ones of apperception¹ are capable to project to the respective peripheral sensorial organs (eye, ear, nose, tongue) the various sensorial qualities; the movement is in an inverse direction, i. e. from the center to the periphery.

Whilst I have often witnessed pruritus accompanying psychoses, principally melancholia, I have seen two cases in which this symptom preceded the outbreak of the mental trouble and disappeared as suddenly as it had come on with the first manifestation of the mental derangement. One of these cases was the wife of a physician. In the

1 The term "apperception" is not frequently used in the psychiatric language of the English speaking nations. A short definition is, therefore, perhaps not out of order in this place. Perception of peripheral sensorial impressions takes place in the several subcortical centers, whilst *apperception*, i. e. the correct interpretation, fixation and adjustment of the value and import of the impression perceived, is effected in the organ of association, the cortex. Thus, the sound of a bell is perceived as a sound pure and simple in the subcortical centers, but the apperception of this sound, its meaning, direct and implied, is realized by the higher associative process in the cortex, which consists in awaking the functional activity of a set of cortical ganglionic cells in which certain memory images are stored up. By irritative processes these centers, the subcortical as well as the cortical, may be rendered functionally active; in the first case sounds will be heard; in the second, words or sentences. This constitutes the mechanism of hallucinations in the insane.

eighth month of pregnancy she suddenly was attacked by furious itching, involving the whole skin and all the mucous membranes accessible to the air. In this state she was delivered, when the pruritus stopped as suddenly as it had made its appearance, a stuporous melancholia setting in instead. In this state she did not recognize her children. She made a complete recovery.

The other was that of a girl 19 years of age, coming of neurotic stock. She woke up one night, suddenly, with the most intense itching. This lasted for several weeks without there being the slightest trace of a skin affection, except a secondary eczema around the genitals, which formed one of the chief foci of the pruritus. Excessive onanism was the result. About two weeks after the onset she became profoundly melancholic, when suddenly the pruritus ceased. Though often in a stuporous condition, she believed herself watched and persecuted and had suicidal ideas. Repeatedly she was taken with pruritus in the course of her mental malady, when she would almost, but not quite, recover her reason. Finally she recovered her mind after a severe attack of pruritus, which lasted for days and in the course of several weeks subsided entirely.

In neurasthenia and hysteria, pruritus, local and general, is not unfrequently a troublesome complication. In these maladies it is also undoubtedly a brain itch, and not a peripheral affection, that we have to deal with. For the mere thought of itching, or the fixing of the attention on any particular spot of the body is capable of giving rise to intense itching. In the case of a lady who suffered from the gastro-intestinal type of neurasthenia, an insignificant fright, a shock, but also a pleasurable emotion passing a certain limit, even a bruise or a slight blow on any part of the body, would invariably be followed, besides a copious fetid discharge from the bowels and a quivering of the abdominal walls, by an itching in various parts of the body which in proportion to the severity of the shock became more or less general and intense.

There are some unfortunate neurasthenic women in whom central pruritus, localizing in or about the vaginal orifice, constitutes the main and all-overtowering symptom. They are invariably treated by gynæcologists who almost as invariably will set down the trouble a "reflex" neurosis, having its origin in one or the other real, though paltry, more often, though, imaginary, pelvic disorder. They are treated locally for years until they are wrecks. In the cases which I have seen there prevailed in a striking way the rapid shifting of sensory disturbances. Either the urethra would itch to an intolerable degree, causing for weeks an incessant desire to urinate, or, when this symptom grew less, or disappeared, the ears, their meatus and surrounding parts would be attacked by the itching, or there would be an intolerable pruritus in other parts. Of course pruritus is never the exclusive symptom in such persons, neuralgias, neurotic œdema and paræsthesia of varying qualities generally co-existing.

A very serious complication in such unfortunates is onanism. For pruritus, whether it is localized in and around the orifice of the urethra, or at any other part of the pudenda, will not remain confined to its chief seat but tend to spread. Thus the clitoridian region will be invaded with the well-nigh inevitable disastrous consequences. The pruritus in these cases leads soon to an artificial eczema by scratching similar to the eczema of the scrotum, perineum and anus in man. These are the cases which so often terminate in utter wreckage, physical and mental; and the unwarrantable diagnosis, "neurasthenia, or insanity from onanism" is made, when, as a matter of fact, a primary central disturbance gave rise to a secondary local manifestation (itching) which in its turn led to onanism and its dire consequences. The cases of nymphomania, of which I have seen only one, are only secondarily referable to this complication; for there is a brain itch before there arise the clitoridian, or pudendal itch.

I have known neurasthenic men to become greatly reduced in strength and flesh by the loss of sleep caused by intense itching. The places of the attack would change in a most capricious manner, the favorite time was generally at night, either on going to bed or on awakening early in the morning. Most of them could produce the itching voluntarily, simply by a mental effort and by fixing their thoughts on a particular spot.

The itching in hysteria is also one of the many trying and annoying symptoms of that neurosis and is referable to the cortex as its starting point. I have even seen it in cases of coarse brain lesions, particularly in one instance of what I diagnosed as embolism of the right Sylvian artery. The itching was at times intensely severe and withstood all palliative treatment.

The treatment of the kind of pruritus which I have tried to elucidate in the above remarks forms a dark and discouraging chapter in therapy. Dermatologists have exhausted the resources which therapeutical ingenuity has been capable of devising. In all works on skin diseases I meet with the advice to send such persons traveling who suffer from itching combined with melancholia.

The practical results have been extremely meagre, perhaps on account of the fact that too much attention has been paid to the local manifestation of what is really a central trouble. But, this proposition being admitted, are the prospects of "cerebral" treatment any better? Does the treatment of the cerebral cortex promise more propitious results?

The only remedies which suggest themselves are the various narcotics which are known to subdue cortical irritability. Unfortunately the most reliable of all, opium and its alkaloids, is notorious for causing itching sensations in neurotic persons, not only at the tip of the nose and the adjacent mucous membrane of the nares, but also in other parts of the body. So does in my experience cannabis Indica, which, in nervous individuals, besides pricking, or

the "pins and needles" sensation and numbness, causes in some decided pruritus.

Many neurasthenics, however, are immediately, and sometimes permanently relieved by a combined bromide (10 to 12 grains 3 times a day) and cannabis treatment ($\frac{1}{4}$ grain of the extract as often) provided that other remedies and procedures usually employed in the treatment of neurasthenia are not neglected.

In the toxæmic variety the rational treatment would be to modify and correct the faulty metabolism of the tissues. Here again, the perverted function of the cells could, it is reasonable to infer, be reached only through the nerves. Of such remedies we have only a slight empirical knowledge derived from the action of the alteratives so-called, but what their *modus operandi* is we do not know.

Nor are we acquainted with any drug which is capable of neutralizing supposititious poisonous substances or materials which irritate the central or peripheral sensory nerve-endings and causing pruritus.

Of all the remedies recommended for the kind of pruritus discussed in the preceding remarks, and, in fact, pruritus of any kind and origin, the warm bath with soda and starch (a handful of wash-soda and half a pound of starch to an ordinary bathtubful of warm water) seems to act better than any other remedy which I have tried. At all events, this simple measure has given better satisfaction than any other in institution treatment, where such cases are notoriously often a source of despair both to the patient and physician. Even in strictly central pruritus it generally acts well, owing, probably, to the sedative effect which the warm bath has on the cortex.

TRANSLATORS.

ITALIAN.

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GERMAN.

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NEUROLOGICAL.

ANATOMY AND PHYSIOLOGY.

BRAIN AND SKULL CORRELLATIONS.—This is the title of an article by Dr. S. V. Clevenger in the October number of *Science*. He calls attention to a previous article in which he shows that the sulcus of Rolando is placed further back in the adult than in the young animal, forming the posterior boundary of the frontal lobe, and that the latter, as it increases in size in proportion to the intelligence, presses backward the posterior part of the brain. He sums up cranio-cerebral peculiarities as follows: "1. The more erect position tends to move the foramen magnum forward. Increased intelligence and erectness are generally, but not invariably, associated in animals, so the position of the foramen alone as an index has a restricted value. 2. The frontal brain-growth is always associated with increased intelligence, and this development crowds the sulcus of Rolando farther back and pushes the medulla oblongata and pons Varolii into a more and more upright position, provided the brain-growth is greater than that of the skull, for a roomy skull may afford expansion and allow the primitive obliquity of medulla and occipital bone to persist. 3. The adjustment of the skull to its contents is a complex matter, but may be better understood by relating cause and effect as acting upon both more or less simultaneously, particularly with regard to the differences in hardness and developmental changes in both. For example, the beaver's skull and brain seem to have kept pace together so as to render convolutions unnecessary, and the beaver is an intelligent animal. The brain of Prof. Leidy was highly convoluted, and appears to have been rendered so by his cerebral being greater than his skeletal growth, and this would seem to have been a family peculiarity, for his brother's brain presented a similar appearance of crowded convolutions. 4. When a juvenile retreating forehead has gradually been replaced in an adult by a more perpendicular one, through education acquired later in life, then the frontal brain may

have crowded and formed more numerous convolutions and fissures in consequence, but the pharynx may not be changed from the original inclination. 5. The softer brain is likely to undergo more rapid changes than the harder skull, either in the evolution of species or the individual, and the mere cranial conformation may, or may not, therefore, be an index to brain area and intelligence, and whatever changes may occur in the skull due to brain increase have reference more to enabling the brain to find room in the cranium, so that a higher forehead may render the more erect basi-occipital unnecessary, or *vice versa*, and normal or abnormal growth of brain may raise both osseous portions. Some mongrel dogs may inherit a larger brain from one parent and smaller brain-case from another, which would account for the deep indentations in their skulls, the pressure causing them sometimes to suffer from epilepsy and other brain derangements; this disparity is not likely to be so great in the offspring of better-mated species. 6. Many other matters could be considered, such as centres of ossification and cartilaginous persistence between such parts as the basilar process and sphenoid, enabling adjustment of the pharynx to the changed medulla angle."

THE PHYSIOLOGY OF THE CEREBELLUM. Gallerani and Borgherini (*Revista Sperimentale*, XVIII, II, Aug., 1892) from their studies on the cerebellum conclude that the cerebellum is a nerve centre in intimate relation with co-ordination of voluntary movements. Its complete destruction causes permanent ataxia of voluntary movement and marked disturbance in the head and neck. The muscular force is not diminished nor is the muscular sense, properly speaking. No special functions are localized in the cerebellum. According to the authors it is a physiological unity, any portion, greater or less, of its substance remaining uninjured there may be a gradual restoration of its functions whenever the remnant preserves the relations which normally exist between each part of the cerebellum and the other nervous centres. The superficial lesion of the organ, which in experiments necessarily involves the superior posterior portions, has as a constant and permanent result, tremor of the head and neck. With the organs of sight and intelligence together the animal corrects, in some degree, his own motor disorder by avoiding some movements and exercising caution in others.

It applies its intelligence by means of its sight much more intensely than in its normal condition. Deprived of sight it gives up all attempts at voluntary motion. This explains its peculiar attitudes when the eyes are bandaged, and the permanent abnormal positions of the limbs. The character of the ataxia from cerebellar lesion is similar to that of spinal ataxia in man. The vermis has an important part in the co-ordination of movements. Its section causes an ataxia similar in type but less extended than that due to extirpation of the cerebellum. It acts as the commissure and unifies the synergic and symmetrical halves in their functions. Its want of action in this way after section may be supplied by the cerebrum (psychic substitution). The paper of Gallerani and Borgherini is followed by a caustic critical note by Prof. Luciani with whose recently published views they are not in accord, and to which they reply in a brief note, stating that they recognize the great authority of Luciani, but no less also that of their instructors Lussana, Stefani and Albertoni, who have also not accepted his views. Their own investigations on the cerebellum, they claim, have been in progress for over five years, and while their observations may not be absolutely beyond criticism they do not feel compelled, out of respect for authority, to refrain from their publication.

H. M. BANNISTER.

THE DECEREBRATED DOG.—Prof. Goltz has published in Pflüger's *Archiv*, Bd. 51, a series of experiments which seem to set aside all our theories of cerebral localization. The *Wien. Med. Blatt.*, No. 28, 1892, gives the following abstract of this work: Prof. Goltz, of Strassburg, has succeeded in keeping alive 3 dogs from which the entire cerebrum had been removed with the knife. One animal lived 51 days, a second, 92 days, and the third was killed, while in perfect health, 18 months afterward. It is to this last animal that the succeeding remarks mainly apply. In all three it was found that the inter-brain had suffered to a considerable extent at the operation. A short time before his death the following observations were made on dog No. 3: He could be wakened from a deep sleep by a tactile irritation. If the attempt was made to remove him from his cage he became angry, resisted, growled, barked (in a normal manner) and attempted to bite. When put back he ceaselessly roamed around in a circular route, often slipping where the path

was smooth, but arising without help. When he was hungry his movements were especially lively. Any attempt at moving his limbs was resisted and corrected with signs of displeasure. He never stepped on the back of the foot. If placed on a table so that one foot rested on a trap-door he did not fall, but removed the limb from the trap. When one of his hind limbs was accidentally injured he ran about on 3 legs for days, as a normal dog would do. Hearing was preserved to some extent as the sound of a trumpet would rouse him from sleep. Sight was also present in some degree as he closed his eyes when a brilliant light was thrown into them. Smell was absent, but as he rejected meat flavored with quinine or colocynth, even when hungry, taste must have existed. The ability to eat and drink, which was absent at first, returned, and his actions were then those of a normal dog with the exception that his food and drink had to be presented to him. He was deeply demented and showed absence of all those actions which we refer to sense, memory, reflection and intelligence in these animals. The decerebrated dog is not to be considered an insensible reflex mechanism, he is as intelligent as the human infant. The author believes from the observed facts, that the position of the partisans of cerebral localization, "that a minute portion of the cerebrum, a so-called centre, should control functions which the decerebrated dog, which has not these centres, shows, is utterly untenable". A dog without the so-called anterior leg centre should not howl or snap at the experimenter's hand when the leg is hurt, but he does it. A dog which has lost the sensory centre for the eye should not flinch when the eye is touched by a needle, etc. These statements are false; for a dog which has no sensory centres whatever does all the things he should not be able to do. A dog minus the auditory centres should be deaf and mute, but he is anything but mute. Others claim that a dog without motor centres should be paralyzed. This myth must go with the rest. The dog minus a cerebrum is not paralyzed; he is only too lively in his paroxysms of rage. The profound symptoms observed after the removal of the cerebral hemispheres are not, in Goltz's opinion, altogether omission-symptoms due to the removal of definite centres, but are in part due to an inhibitory impulse started in centres lower down by the irritation of the cerebral injury. The fact that dysphagia with entrance of food into the larynx occurred for a long time, shows an inhibition of the function of the

medulla. For the greatly varying duration of the inhibitory impulses Goltz can find no plausible explanation. As the most important loss due to removal of the cerebrum he considers that of the processes which we can group as mind in these animals (memory, reflection and intelligence).

G. J. KAUMHEIMER.

THE OPTIC CENTRE AND EYE MOVEMENTS.—Munk (*Sitz.-Ber. d. K. Acad. d. Wiss.*) reports the result of experiments made with the assistance of Obregia. Schæfer has demonstrated that electrical irritation of Munk's optic centre causes definite co-ordinated movements of the eyes. The movement is always from the irritated side and is combined with a movement downward, if the anterior, and upward if the posterior portion of the optic zone be irritated. Munk does not believe this to be due to an associative stimulation of the motor eye centres, as stronger currents produce only movements of the eyes, and circumcision of the centres, which severs the association-fibers, produces no effect on these movements. Section of the projection fibers abolishes these movements. From these facts, M. assumes that as a result of the stimulation of these segments of the optic centre, the animal has the sensation of vision and turns its eyes to the point in space which this picture occupies. As very much stronger currents are necessary to produce this effect after excision of the cortex, and as narcotics reduce its intensity to an extraordinary degree, it would seem to be proven that it is due to the stimulation of cortical elements.—(*Deutsche Med. Wochensch.*, No. 34, 1892.)

G. J. KAUMHEIMER.

CEREBRAL NERVE FIBERS AND ORGANS OF MOVEMENTS. — Drs. P. Blocq and J. O. Zanolff (*Gaz. des Hop.*, Sept. 8, 1892) conclude that the thoracic members to which pass the greatest number of cerebral fibers are, above all others, destined to intelligent movements which require special cerebral intervention. This functional adaptation has evidently led to development of ways of communication with the brain. Thus are also explicable reflex movements on which the brain exerts a moderating influence; particularly the tendon reflexes, which, under normal conditions, are much less developed in the thoracic than the abdominal members. These last are most employed in automatic, unconscious acts requiring little cerebral intervention. Pathologically

speaking, the same is true. The upper extremity in cerebral lesions is more frequently and decidedly affected than the inferior, and return of mobility is less rapid and less complete. Psychic paralyses are more frequent in the superior members but more tenacious in the inferior.

J. G. KIERNAN.

GRAPHOLOGY AND ITS CENTRES.—Varinord points out (*Revue de l' Hypnotism*, July, 1892) that for writing, the graphic centre of the foot of the left second frontal convolution innervates and moves the muscles of the fore-arm and hand, and produces subconscious movements in the latter which produce handwriting characteristics. In so complicated an action, therefore, an external influence may lead to modifications, and there is reason to believe that the same action will produce the same reaction under every circumstance, whence a particular type of handwriting will result for each of its influences.

J. G. KIERNAN.

THE VASO-MOTOR ACTION OF THE SYMPATHETIC.—Cavazani (*Rivista Sperimentale*, XVIII, II., Aug., 1892) after discussing the investigations of preceding authors, Gaertner and Wagner, Hurthle, Schulten, Ray, Sherrington, and others on the regulation of the cerebral blood supply, details his own experiments on rabbits and dogs in which he studied the blood pressure in the circle of Willis with a manometer and kymograph, stimulating the cervical sympathetic nerves mechanically and electrically, taking precautions to avoid, as far as possible, any sources of error that might have existed in former investigations. Besides the pressure in the brain, the general blood tension of the body was also taken account of and recorded, and control-experiments by the method of artificial circulation were also made, the results of which were in entire accordance with those by the graphic method. His conclusions are formulated as follows: (1.) The system of the great sympathetic in the cervical region co-operates in the innervation of the cerebral vessels. (2.) It there assists with both vaso-constrictor and vaso-dilator fibers; the former directly excitable by electric stimuli, and the latter by the same and also by the stimulus of anæmia. (3.) The vaso-motor action of the sympathetic, under ordinary conditions, is not produced on the cerebral vessels, or is very slight,

while it is energetic, even to producing vascular cramp, during mechanical and electrical excitation. (4.) The excitation of the vaso-dilator fibers is due to anæmia rather than to lowering of the pressure in the vascular ramifications.

H. M. BANNISTER.

NEUROLOGICAL.

PATHOLOGY AND SYMPTOMATOLOGY.

CYSTIC TUMOR OF LEFT LATERAL VENTRICLE. — The patient was an ill-nourished, kyphotic female, 47 years old. She gave a history of cardiac trouble. About a month before admission she had an apoplectic seizure of short duration which left some disturbance of speech and a weakness of the right arm, which gradually became worse. Syphilis could not be proven. On admission there was incomplete paralysis of the right arm and paresis of the right leg. Sensation and reflexes were normal. There was right hypoglossal paralysis, slight aphasia and moderate dementia. Neither headache, vomiting, slow pulse, choked disc, nor paralysis of the ocular or facial muscles were present, although a distinct difference in the size of the pupils was seen. In a week a complete spastic paralysis of the right arm had developed; in the leg it occurred later. At the same time there was hyperæsthesia. Speech soon became unintelligible. The left side of the face became paralyzed, but showed clonic spasms, especially of the sphincter oculi. The limbs on the left side were also frequently involved in spasm, which increased in intensity shortly before death. At this time percussion of the head elicited an expression of pain on the left side of the face, the right remaining rigid. The intellectual faculties speedily became extinguished until coma with paralysis of sphincters set in 14 days after admission. In this condition she remained, with but slight lucid intervals until death, after a stay of 30 days in hospital. Autopsy showed flattening of the gyri, especially on the left side. The left ventricle contained a cystic tumor covering the thalamus, being 8 cm. long and 6 cm. broad. The cyst wall was smooth, translucent, of a pale red color, and covered with a fine network of vessels. The fluid was clear and of a pale yellowish-red color. The tumor, which was a typical spindle-celled sarcoma, had

developed from the choroid plexus and had destroyed the posterior part of the caudate nucleus and the postero-lateral portions of the left thalamus. The author then discusses all the published cases of tumor of the thalamus and reaches the rather unsatisfactory conclusion that there are no focal symptoms which can be referred to lesions of this ganglion with reasonable certainty.—(Dr. Carl Hirsch, *Berlin. Klin. Wochens.*, Nos. 29-30, 1892.)

G. J. KAUMHEIMER.

INTRA-CRANIAL TUMOR COMPRESSING LEFT FRONTAL LOBE.—Dr. Morrison reports the following case, which first came under his observation in 1886, the only symptom then being pain in head which he at that time attributed to localized syphilitic meningitis. In 1888 had an epileptiform convulsion and pain in head gradually increased. In 1889 gave up work, speech became slower, eyesight began to fail, and, on stooping, pain increased in frontal region (during last nine months pain has not been so severe), memory for past events retained, that for recent events defective. Dec. 26, 1891, patient passed into comatose condition and died. Autopsy showed a tumor in left frontal region occupying greater part of left anterior fosse. The base of the growth measured $2\frac{1}{2}$ in. vertically by $3\frac{1}{4}$ in. transversely; extended backwards into frontal lobe $2\frac{3}{4}$ in. Microscope showed spindle-celled sarcoma. The special features of this case are: evidence of slowly developing lesion accompanied by pain in head, not localized, single epileptiform convulsion, neuro-retinitis, loss of memory, slowness of mental process and speech, slight amnesic aphasia, absence of motor disturbance, and absence of signs of involvement of special senses other than sight. (*Medical News*, Oct. 29.)

B. M. CAPLES.

THYROID TUMOR COMPRESSING THE PNEUMOGASTRIC.—Dr. Chibert reports (*Mercredi Med.*, Nov. 2, 1892) the case of a 56-year-old woman who entered an hospital for rheumatic pains. While there, as these improved, she submitted to an hysteropexy for uterine prolapse. She was transferred, surgically cured, to the medical wards for new rheumatic pains: Here she complained of suffocating sensations and retro-sternal pains. A week later she died suddenly. On autopsy a tumor was found behind the sterno-clavicular articulations compressing the trachea; deviating to the right. The right

pneumogastric was raised by this tumor and adhered to it. The fibers given from it to the cardiac plexus were also raised and stretched. The tumor was of the size of a mandarin orange and fibro-cystic. It was pediculately attached to the thyroid gland. There were few definite symptoms.

J. G. KIERNAN.

CEREBRAL PARALYSIS is the title of a clinical lecture delivered by Dr. Brower at the Woman's Medical College, Chicago. Dr. Brower exhibited two cases of paralysis, both single men, fifty years of age, neither of whom gave a history of previous ill health or of alcoholism. Heart, lungs and visceral organs practically normal; muscles not atrophied but reflexes exaggerated on paralyzed side; in one case slight aphasia. The presence of reflexes and absence of atrophy excludes myelitis or peripheral disease as cause of paralysis, so it must be cerebral. The four causes of cerebral paralysis are: *congestion*, *embolism*, *thrombosis*, and *hemorrhage*. Paralysis resulting from congestion is characterized by complete unconsciousness at the beginning of seizure, and recovery from the paralysis is usually speedy and complete. Neither of these men lost consciousness and the recovery up to date has been trifling. The second cause, *embolism*, has a history similar to the two cases with the exception that cerebral embolism is almost invariably consequent upon endocarditis, and this usually follows rheumatism. No heart disease nor rheumatic history in either case. *Thrombosis*, the third cause, is the result of chronic degeneration of the blood-vessels requiring months and years for its completion, and during this period are many evidences of disturbed cerebral function. No such history in either case. Eliminating the first three causes leaves *cerebral hemorrhage* to be considered. This is the most frequent cause of cerebral paralysis and is consequent upon some degeneration of the blood-vessels, usually a periarteritis. This condition usually belongs to old age, but there are other causes of degeneration of blood-vessels to be found in patients of fifty that may be the foundation of the hemorrhage, such as chronic Bright's disease, chronic alcoholism, and syphilis. History of the cases throws out the first two causes. The men acknowledge no syphilitic history and there is absence of its ordinary symptoms, nevertheless, for want of other causative

factors, the degeneration is a probable outgrowth of syphilis resulting in cerebral hemorrhage. The next important point to be considered in these cases is their probability of recovery. In cerebral paralysis one is justified in making a favorable prognosis unless secondary contractures appear. Six or eight weeks is as early as we have reason to expect occurrence of secondary contractures, and usually three or four months elapse before they are well developed. In the cases exhibited the onset was that form called *simple*, but the more usual is *apoplectic*, where the patient loses consciousness, usually falls and has complete muscular relaxation. The third form of onset is *epileptiform*: the patient loses consciousness and has an epileptiform seizure. In the apoplectic form nothing is to be done except to place patient in a recumbent position and, if the lesion can be located, a continuous, moderate pressure over the carotid artery on that side will tend to limit the hemorrhage. A drop of croton oil placed upon the tongue will usually result in a speedy action of the bowels. When consciousness returns, further hemorrhage may be relieved by bromides and ergot. Ten to 15 grains of bromide of soda or potassium and 15 to 20 minims of fluid extract of ergot may be administered once in three or four hours for this purpose, and as the danger of recurrence of hemorrhage decreases the doses of ergot and bromides should be diminished. After three or four days the ergot may be withdrawn and iodides substituted for the purpose of absorption. A week or two after seizure the patient will probably have some added cerebral disturbance, such as headache, fever and delirium. These symptoms call for a renewal of the ergot and bromides and careful attention should be paid to the bowels at the same time. When this secondary disturbance has disappeared massage and Swedish movement may be used in connection with electricity. Tonics should be used internally and careful attention must be paid to elimination by skin, bowels and kidneys. If the paralyzed members do not improve under this treatment it is wise to inject strychnia into the muscular tissues: a daily dose of $\frac{1}{60}$ of a grain in the arm one day and the leg the next, during the progress of the treatment. As the only way by which control of the brain over these paralyzed members can be re-established is by opening up new paths for the conduction of the motor impulses, the patient should be urged to exert all the will-power he

possesses in efforts at muscular movement, as otherwise medical aid is practically useless.—(*The Chicago Clinical Review*, Dec., 1892.)

BULBAR PARALYSIS.—Hoppe, in *Berliner Klin. Woch.*, describes four cases, two of which were observed by Oppenheimer, one by Wilks and one by Eisenlohr, in which the clinical history shows many points of similarity with Duchenne's bulbar paralysis. The paralysis begins in some motor area, usually in one supplied by a cranial nerve. The disease progresses slowly and ends in complete paralysis, but there is no atrophy and no change in electrical reaction. Temporary improvement is frequent and considerable change is often seen in the course of a single day. In all of the cases the disease progressed without complications and ended in death. The autopsies with microscopic examination were negative. The author believes that there are minute changes in the cortex which cannot be discovered by our present means of observation, (*Bielschowsky Neurologisches Centralblatt*, No. 15, 1892.)

JOS. KAHN.

LARYNGEAL PARALYSES IN LOCOMOTOR ATAXIA.—The paralysees of the larynx are of great interest, not only to the laryngologist, but also to the neurologist. Krause has found the centre for phonation in the cortex, a discovery verified by Horsley and Semon, and has also determined the paths of the phonation impulse, as well as centres and paths for the respiratory function. The rational explanation of clinical phenomena requires the assumption of the existence of independent centres for these two functions. Semon and Rosenbach have independently observed cases in which one or both vocal cords remained during inspiration in the position for phonation; and later in the course of the disease passed into the cadaveric position. This was observed in the course of lesions of the centres as well as of the vagus and recurrent nerves. Rosenbach has stated the law, to which no exception has yet been noted, that in all lesions of the motor nerves of the larynx (and their centres, [Semon]) in which there is not absolute loss of conduction, the abductors and later the adductors of the vocal cords are paralyzed. Horsley and Semon have located a respiratory centre in the medulla. Krause and others deny a paralysis

and attribute the position to a spasm of the adductors. Grabower reports the case of a tabetic male whose left vocal cord remained very near the cadaveric position during quiet respiration. In deep inspiration it moved tremulously outward and approximated its fellow during phonation, producing loud, clear tones. There was consequently an isolated paralysis of the left crico-arytenoideus posterior with no contracture of the adductors. There are about 40 clear cases of laryngeal paralysis in tabes on record, but an isolated paralysis of this nature is very rare indeed. There is no doubt that a secondary contracture of the adductors will take place, but there is also none that the present condition is due to a paralysis of the abductors and not to a spasm of the adductors. Semon has seen such a case last 8 years, and it is quite improbable that a spasm of the adductors, either of peripheral or central origin, should last that length of time. (*Deutsche Med. Wochensch.*, No. 27.)

G. J. KAUMHEIMER.

DISTURBANCE OF SPEECH AND VOICE IN PARALYSIS AGITANS.—Dr. A. Rosenberg exhibited a patient before the Berlin Laryngological Society in whom the laryngeal muscles were implicated in the disease. The patient, 62 years old, had had the disease for 30 years. He was the first patient in whom the bending back of the head had been noticed and described by A. Hermann in 1888. Although speech was modified by the tremor of the head it presented certain peculiarities even if the tremor of the head was suppressed. It was choppy, with involuntary pauses often lasting several seconds between the syllables, especially of a long word, so that the pronunciation of the second word or syllable was impeded. It differed from the scanning speech of sclerosis in the fact that the pauses were of variable duration. This irregularity was due to the involvement of the lips, cheeks, tongue and throat by the paralysis. If the patient was excited the soft palate could be observed to contract from 3 to 6 times in rapid succession followed by a variable interval of rest. The epiglottis was frequently drawn down to a position of deglutition. Laryngoscopic examination showed a like involvement of the vocal cords. The cords were seen to be involved in the tremor like the voluntary muscles. The phonation position could not be kept longer than 7 to 8 seconds. At the same time the voice changed from a high

to a low pitch. The spasm only occasionally occurred during quiet respiration; sensation in pharynx and larynx was normal. The author then reviews the various phenomena presented by the larynx in different nervous diseases and points out the differential diagnosis.—(*Berl. Klin. Wochensch.* No. 31, 1892.)

G. J. KAUMHEIMER.

OCULOMOTOR PARALYSIS.—Schlesinger, at the Vienna Medical Club, showed a case with complete paralysis of the oculomotor nerve of the left side. Numerous pigmented spots were seen on the forehead which were the result of herpes zoster. The paralysis occurred one week after the appearance of the herpes. Such cases must be extremely rare as only one similar case can be found in medical literature.—(*Prag. Med. Wochensch.*, No. 42, 1892.)

JOS. KAHN.

EXOPHTHALMIC GOITRE WITH OCULOMOTOR PALSY.—Schlesinger, at the Vienna Medical Club, reported a case with exophthalmos, tachycardia and enlarged thyroid, a typical case of Basedow's disease. When the patient extends her fingers they present a fine tremor. When the eyes follow an object in an ascending plane the lids remain stationary, not so in a descending plane. The right superior rectus muscle is paralyzed. Paralysis of the muscles of the eye is not rare in exophthalmic goitre, but usually the internal and external recti are affected, or there is complete ophthalmoplegia. Paralysis of the superior rectus has never before been observed. Recklinghausen has shown that in exophthalmic goitre a fatty degeneration of the muscles of the eye may appear. Other observers hold that the paralysis may be due to disease of the medulla or of the peripheral nerves. Hysteria and tabes, which are sometimes given as causes, can be absolutely excluded in the case under consideration.—(*Prag. Med. Wochensch.* No. 42, 1892.)

JOS. KAHN.

PERIPHERAL AFFECTIONS OF THE OPTIC NERVES IN HYSTERIA.—Prof. Th. Leber believes that many cases of visual trouble in hysteria are due to a transient retrobulbar optic neuritis. Continued examination with the ophthal-

moscope will show, sooner or later, even if the amblyopia recedes in a few days, a pale papilla. This is not to be counted as due to any decided atrophy of nerve fibers, but rather to changes in the neuroglia. This form of neuritis requires but slight treatment; small doses of salicylate of soda or potassium bromide, and later, hypodermics of strychnia, being all that is necessary. A number of illustrative cases is given. (*Deutsche Med. Wochensch.*, No. 33, 1892.)

G. J. KAUMHEIMER.

HYSTERIA WITH ORGANIC DISEASE.—Babinski has reported to Paris Hospital Medical Society (*La Tribune Med.*, Nov. 17, 1892) nine cases of organic diseases in which hysteria existed. One was a case of ordinary spasmodic hemiplegia; one case of diffuse meningo-encephalitis; one case of facial paralysis; one case of peripheral neuritis; one case of neurasthenia; one of cervical endometritis; one of organic coxalgia; one of scapulo-humeral periartthritis.

J. G. KIERNAN.

HYSTERIA IN CHILDREN.—Dr. Paul Winge, in a paper read before the Norwegian Medical Society, reported four cases of hysteria in children. They all were supplementary to one other, for, taken all together, they presented all the symptoms of the disease. In the second case the paralytic and dystrophic symptoms were most prominent, while the others were less distinct. In the first and third cases the sensitive and sensorial symptoms, as well as the characteristic psychic symptoms and spasms, were more marked. The first was the most typical case. Here there was a distinct hysteric "temperament" with deficient nourishment, spasmodic attacks of varying duration and character, hysteric zones, mutism, deafness, and deficient vision in the left eye. The lower extremities were also paretic. No anæsthesia. The second case also had spasmodic attacks, hysteric zones and paresis while no hysteric "temperament" was perceptible. No sensorial symptoms or anæsthesia. The third case presented an hysteric "temperament" and deficient nutrition, attacks of spasms, complete anæsthesia, mutism and hallucinations of sight. To these may be added catalepsy and paralysis of the lower extremities. In the fourth the dystrophic and paralytic symptoms were most prominent of all the four. The field of vision was diminished. Her "temperament" was not especially hys-

teric. None of the patients presented anything of importance in deviations from the normal in either their corporeal or psychic development. The first was 11 years old, the second, 12½ years, the third, 10 years, and the fourth, 13 years of age. The first two were males, the other two females. As to the treatment, the first was given prolonged baths, chloral and electricity, the other three, besides removal from home, received general suggestions in the waking state, tonics, and the two girls, arsenic. The second also was given the iodide of potash as a cerebral tumor was feared to be present. The prognosis was good in those without hereditary involvement, but doubtful, or even unfavorable, in the first case, where a hereditary taint was possible. The Norwegian literature contains but little on this subject. Skjelderup contributed a monograph on the disease in children, in 1863, but describes no cases; Faye, 1875, mentions it, but presents no cases. The *Norsk Magazin for Lægevidenskaben* for 1891 contains three cases. One of these, described by M. Holmboe, from the Rotsvold Asylum, was that of a thirteen year old boy, the son of a fisherman, who was treated at the asylum from the 8th of April till the 9th of August, 1889, and improved. The other two cases were communicated by A. Selmer, of Balsfjorden, Nordland. They concerned two little girls, the one thirteen years of age and the other twelve. Both were cured. These were reported in the March number of the *Review of Insanity and Nervous Disease*, No. 3, 1892, from the *Norsk Magazin for Lægevidenskaben*, No. II, 1892. Dr. E. Bull reports two further cases in the same number of this same journal. They were a brother and sister of the same family, aged, respectively, 10 and 11 years. The sister was first attacked and the brother infected soon after. They were treated with some degree of success as long as they were separated from their friends, but on restoration to their family they relapsed. Finally they were sent to the country and disappeared from view. Dr. L. Schibbye, in a third article in the same journal, the same number, records a case of hysteria in a nine year old girl who suffered from ischuria at the same time, which he thought to be of hysterical origin. The ischuria was especially obstinate, though it improved under the use of hyoscyamus and camphor together with suggestion in the waking state. She improved to relapse again on returning to her relatives.

NORMAL HYSTERIA.—The subjects of this class of experiments were ten in number, seven women and three men. The experiments were made as follows: the patients were weighed and their temperature noted every two days; the urine was collected every ten hours. The duration of the investigation averaged eight days for each patient. The volume of urine, the quantity of fixed residuum, urea and phosphoric acid were noted. The results which the authors obtained led them to conclude that in normal hysteria (the form in which the manifestations consist in permanent stigmata) the nutrition is effected in a normal manner. *Pathological Hysteria.*—Gilles de la Tourette and Cathelineau in a first series of experiments studied the modifications of nutrition induced by convulsive attacks in hysteria. In regard to this they had been preceded by but a few other authors. Among these is Rummo who had, from his numerous analyses of urine obtained every two hours before and after the attacks, found that in convulsive hysteria the bodily exchange of material is positively decreased. It is known that, according to the classic studies of Charcot, the typical hysterical convulsive attack is divided into four phases: (1) the epileptoid period; (2) that of general movements; (3) that of passional attitudes; and (4) that of delirium. If it is generally admitted that the urine is more abundant after the attack, very different opinions prevail in regard to its composition. The experiments were made on ten hysterical patients, 8 men and 2 women, in all, 92 analyses of urine during 38 attacks. The patients were under observation from the beginning of the attack till 24 hours after. If it began, for instance, at 6 P. M., the urine was collected from that hour to the corresponding hour the following day. It was collected in two vessels, one containing the first passed (primary urine) and the other receiving all the rest during the attack (secondary urine). None of the subjects showed symptoms that would affect the nutrition (anorexia, vomiting).—*Quantity of Urine.* While normally the amount of urine passed at one time varies between 150 and 200 grams, it was found that in these patients the primary urine rose to as much as 700 grams (over 23 oz.) The primary urine in several cases was greater in quantity than the whole amount passed later, and it averaged one third of the whole; the total quantity was not increased. The intensity and duration of the attack did not seem to exert any influence upon the amount. The primary urine was

limpid, the secondary, an orange yellow. Both were slightly acid and odorless. The density of the total urine averaged 1016; that of the primary urine varied from 1004 to 1010; that of the secondary from 1025 to 1026. The fixed residuum, the most important matter of the analyses, was the same in all the subjects. In healthy individuals this varies between 40 and 52 grams in 1000 cubic centimeters of urine. In the ten patients it was constantly below the normal figures and varied between a minimum of 39 grams and a maximum of 47 grams and averaged between 35 and 38, while the normal average is 46.38. The conclusion, therefore, is that a hysteric convulsive attack diminishes the fixed residue of the daily urine by about one third. As regards the principal elements of this residuum the following are the results of the analyses. *Urea*. In both primary and secondary urine the ratio of urea was below the normal and the primary urine contained only one tenth as much, on the average, as the secondary urine. In the women the normal excretion of urea varied between 10 and 24 grains in 24 hours, while it ranged between 10 and 17 on the day of the attack. In the men it was also proportionately reduced. *Phosphates*. In the healthy person, as well as in the hysterical one, in the normal condition the total amount of phosphoric acid varies during the 24 hours between 2 and 2.57 gr. In the ten hysterical subjects at the time of the attack, the total quantity of this acid ranged between 0.70 and 0.71 gr. with an average of 1.24, while the normal average of these ten was 2.19. The phosphoric acid normally excreted in the urine decomposes into earthy phosphates (lime and magnesia) and alkaline phosphates (soda and potassia), the latter in excess to the former in the ratio of 100 to between 25 and 44. In the ten subjects, however, the ratio, normally about 1 to 3, became at the time of the attack 1 to 1. The tendency of the attack is, therefore, to equalize the two. These statements apply to the totality of the urine, but are applicable also to the primary and secondary urines, with this peculiarity, however, that the primary is very poor in phosphoric acid as compared with the secondary, according to the two French authors; these results, to which they give the name of *inversion of the formula of the phosphates*, are pathognomonic of the hysteric attack. The same phenomena were observed by Chaumemesse in a case of hysterical pseudo-meningitis. *Chlorides*. The excretion of chlorides follows the same rule; during the attack they are generally decreased. In only

three instances did there seem to be an increase. The mean varied between 8 and 12 grains. Some authors have noticed the presence of sugar in hysterical urine (Gibbs, Goolden), others have found albumen, but Gilles de la Tourette and Cathelineau found neither in their analyses. The two authors conclude from the above stated facts: "That the hysterical convulsive attack is characterized by a general retardation of nutrition. The fixed residue, the urea and phosphates, are diminished about one third as compared with the normal state. The proportions of earthy to alkaline phosphates, normally 1:3, tends to become 2:3. Increase of the fixed residue, when verified, is due to augmented excretion of chlorides." The primary urine is greater in volume than the secondary, but its solid constituents are comparatively small. The length and intensity of the attack accent the modifications of nutrition. Even an attack of a quarter of an hour causes changes that are shown by chemical analysis, and these modifications are met with after the attack for a period apparently not exceeding 24 hours. Clinical observation shows that the classical hysterical attack of four periods is rarely met with. One period may predominate at the expense of the others and extraneous influences may modify it. The grand hysterical attack, therefore, has several varieties. Gilles de la Tourette and Cathelineau have studied the nutrition in two varieties. In one, the symptoms were those of partial epilepsy, in the others the attack was limited to the first period. The result of the examination of the urine in these two was nevertheless exactly the same as that in the classic type. The same result was met with in two cases of rhythmic chorea, one of hysterical cough, and one of hysterical yawning: hence they conclude that all these forms of hysterical manifestations are chemically the same as the convulsive type. This confirms what Charcot had already established on clinical grounds. The state of the nutrition in the prolonged form of attack, or *mal hysterique*, characterized by a more or less continued succession of attacks lasting days or weeks, or even months, was also investigated by the French observers. In this form the type of any one of the four periods may predominate and give its name to the attack. In some instances the lethargic or somnolent period is continuous, and we have in such what may be called hysterical lethargy, or somnolence, which may be interrupted or alternated by one of the other phases, more particularly by that of the

passional attitudes. Gilles de la Tourette and Cathelineau carried on their researches in one case each of the epileptoid and passional types, and six cases of the lethargic type, one which extended over fifteen days. In these cases the urine was collected with the catheter. From all these they conclude that the condition of *mal hysterique*, whatever form it assumes, is only a prolonged attack of hysteria, presenting the same phenomena, chemical and physical, of the urinary secretion. Noticing the curve of the urinary secretion it is seen that it is lowered in the beginning of the lethargic attack and rises at its close. As Charcot has observed, this has a valuable clinical signification since it is contrary to that in inanition, where the descent is progressive. On the day the patient emerges from the lethargic state, or it may be 48 hours before, there is a rapid ascent of the curve corresponding to a quantitative and qualitative increase, although there has been no aliment taken, either solid or liquid. This phenomena is so constant that it enables one to predict the duration of the attack and the early return to the normal condition. Gilles de la Tourette and Cathelineau made what seemed to be an important clinical deduction, their formula of the inversion of the phosphates appeared to them to be a valuable aid in the diagnosis of hysteria and epilepsy, which is sometimes so difficult. If, on examination of the urine, it is found that the solid matters are all diminished and the proportions of the earthy and alkaline phosphates approach equality, the case is hysterical, since, as Mairet and Rummo have observed, the excretion of these substances is increased in the true epileptic attacks. Féré and Voisin, however, have recently contested these conclusions and the matter is still *sub judice*. Among the more singular abnormal phenomena of hysteria must be included the increased bodily temperature sometimes observed, which has been described under the name of *hysterical fever*. Briquet (1859) reported he had found in 20 cases of hysteria a febrile condition lasting several weeks associated with intense headache, lively delirium and hysterical convulsions. Briaud (1883) distinguished three forms of hysterical fever, a slow form, already described by Briquet, a brief form of typhoid type that marked the beginning of hysteria, and an intermittent form of the tertian type. Chautemesse, Baisard, Macé and others have described a pseudo-meningitic hysterical fever, distinguished by its rapid progress and quick re-establish-

ment of health. Rosenthal states in regard to hysteric fever, in his treatise on nervous diseases, that it ordinarily occurs as a sequence of emotional conditions and is accompanied with a decrease or increase of the temperature of 1.2 to 1.4 C. of the skin, face, neck and breast, while the axillary temperature oscillates between 37.4 and 37.6 (=99.32 and 99.68 F.). One of the more noteworthy memoirs on this subject is that of Sarbo (*Arch. f. Psych.*, 1891) which, besides many references to the literature, contains a number of interesting observations. Sarbo distinguishes two groups: in the first there is no real rise of temperature but other symptoms observed in fever are present (frequent pulse and respiration, tremor, sense of heat, &c.), so that the general appearance is similar to a real febrile disorder (hysterical pseudo-fever). The second group includes cases with actual rise of temperature (hysterical fever) and this he sub-divides into continuous and paroxysmal fever. Each of these two forms has, according to the temperature, a light and a severe variety. The following are this author's conclusions: A continuous fever may present itself in the course of hysteria without depending upon any organic affection. It appears under two forms, a light form with temperature not over 38.5C. and a severe one with temperature from 38.5 upward. The duration may be days or months. This fever may be accompanied with symptoms like those of other disorders (typhus, meningitis, phthisis, peritonitis). Sometimes, without any apparent cause, in the course of hysteria there appears a sudden febrile attack (paroxysmal fever) with greater or less rise of temperature. The febrile attacks may be associated with, or be independent of, convulsive attacks. The hysterical pseudo-fever, as well as continuous fever, may also be associated with paroxysmal fever. In 1878, the reviewer, Sepilli, published in connection with Dr. Maragliano a case of fever without known cause which must be referred to hysteria, and others are referred to that have been observed by Manzieri, Bordoni, Sciammanna, Hale White, Viglioli, Mierzyewsky, Esteres and Sacchi. The case of Viglioli is of special interest. A woman, 30 years of age, was taken with fever in January, 1891. During the first week the morning temperature ranged from 37 to 37.5, the evening temperature from 48 to 38.5. The second week there were progressively ascending oscillations up to 41°, and the third week, with the still elevated temperature there was a first

attack of lethargy with usual accompanying symptoms. After the attack, which lasted nine hours, the temperature rose to 43.5 (=110.3F.). These attacks of lethargy were repeated at varying intervals with subsequent high temperature up to as high as 45 (=113.F.). It is noteworthy that sometimes a few hours later there was a rapid fall of temperature to 37., 36., 35., and even to 34.5 (=94.F.). Toward the end of the fourth week complete anuria appeared together with incontrollable vomiting, which lasted seven days. The circulation and respiration were not influenced by the high temperature, and during the whole three months the patient preserved her strength and did not waste away. All the symptoms at last disappeared suddenly. In Mierzejewsky's case the temperature rose as high as 43 and fell as low as 29.3 C. (=84.75 F.). Sometimes the range was 11° in the twenty-four hours and it reversed the usual order, being highest in the morning. At the same time the daily amount of urine diminished to 300 cubic centimetres. In spite of the high fever there was no unusual perspiration or desire to drink. These clinical facts show that hypothermia may be a manifestation of hysteria. Rummo considers the rise of fever 1° to 3° observed in epilepsy as well as in hysteria, independently of the convulsive attack, to be a true thermic equivalent of the attack. Chemical examination of the urine affords an important criterion to establish the diagnosis of hysteric fever. In Vizioli's case, the urine, analyzed by Prof. Primavera, showed a lack of all the principal solids and particularly of urea. Similar results were obtained by Scrammanna and Mierzejewsky, and it therefore appears that this urine reverses the conditions of ordinary febrile urine. As regards pathogenesis, the most recent views attribute hysterical high temperature to functional changes in the cerebral thermic centres. This is the view of Sarbo, and it also explains the various so-called "nervous" and "functional" fevers. Hysterical fever occurs very often without any known cause. Sometimes it is provoked by menstruation, traumatism, or psychic impressions, or it may precede or follow a convulsive attack. Charcot has claimed that the temperature is of value in distinguishing status epilepticus from hysterio-epilepsy, since in the former the temperature rises rapidly to a high grade while in the latter it does not exceed the normal figure. This rule, however, is not absolute. Wunderlich has reported a case of hysterio-epilepsy

with epileptiform attacks during eight weeks, who then, fallen into collapse, died with a temperature that had risen within a short time as high as 43 C. Rummo also saw a temperature before death of 41.1C. in a patient suffering from genuine hystero-epileptic convulsions. According to Sarbo the increase of temperature after a series of convulsions must not be considered as a diagnostic of epilepsy, as it may occur in hystero-epilepsy to which is associated the condition of hysterical fever. All the above facts taken together, says Seppilli, show clearly that we may find in hysteria a profound disturbance of nutrition, manifesting itself by a retardation of the processes of assimilation and disassimilation, together with modifications of thermogenesis. The anorexia and anuria without uræmic disorders, and the diminution of the solid matters in the urine during every form of hysteric attack, are phenomena that admit of no interpretation if we do not assume a deficiency of activity of tissue change in the system. This admitted, and holding that the regulations of tissue change, as has been clearly shown by Prof. Luciani in his studies on digestion, is a fundamental function of the nervous system, does it not follow that all these hysterical phenomena should be referred to a functional disturbance of that system?

H. M. BANNISTER.

THE NUTRITION IN HYSTERIA. The following are some of the principal points in a critical review of this subject and its literature by Dr. Seppilli in the *Revista Sperimentale di Freniatria* XVIII, II, 1892. Taking up, first, the subject of hysterical anorexia, he refers to Gull's *apepsia hysterica* (1873) contemporaneous with Lasègne's description, and a little earlier than Huchard's "mental anorexia". In some hysterical cases the cause of the anorexia is a sense of discomfort, of weight or pain in the epigastrium associated sometimes with vertigo. The patient considers eating to be the cause and reduces his diet to a minimum. The idea becomes a fixed delusion and abstinence is the result. In other cases motives of coquetry are the cause, the patient wants to appear interesting, has objections to gaining flesh. In others the refusal of food is due to the lack of the feeling of hunger, and this is the most frequent cause of hysterical anorexia. In two cases described by Sollier it was due to a sensory illusion, macropsia, the patients saw the volume of the food so magnified that they had not the courage to try

to eat it. In the beginning general nutrition does not seem to suffer, there is an exaggerated activity and lack of discomfort, but after a longer or shorter period the symptoms of inanition appear. Emaciation progresses, the patients are reduced to living skeletons and confined to their beds, bodily temperature is reduced, the extremities become cyanotic and cold, thirst increases, the pulse becomes more frequent, the skin dry, and unless treated properly and in time death intervenes. As to the treatment it is noteworthy that isolation and removal of the patient from their families and surroundings often works marvellously well. Bernheim obtained in one case a cure by daily practice of hypnotic suggestion. A not infrequent cause of hysterical anorexia is vomiting. Charcot first called attention to the relations between hysterical vomiting and anorexia and anuria, and having found in one case that the vomited matters contained urea, he attributed the vomiting to the suppression of the renal secretion. Fernet came to the same conclusion after having found urea not merely in the matters vomited but also in certain other secretions, such as the saliva. (Seppilli here quotes in detail two cases reported by Gilles de la Tourette and Cathelineau apropos to this point.) The doctrine of Charcot of the uræmic origin of the vomiting in hysteria from suppression of the renal functions is not generally accepted for various reasons. First of all, Hepp of Strassburg, Bouchard and Empereur have shown that the vomited matters may contain urea independently of uræmia and hysteria. Moreover, cases of hysterical anuria occur in which there is no vomiting. Cases of this kind have been described by Rossoni and Holst and are of interest as indicating that the theory of Charcot is not to be accepted too implicitly, and that in certain hysterical conditions there exists a profound disturbance of the organic material exchanges in the system; a slowness of assimilation and disassimilation that prevents the excessive accumulation of products of consumption in the blood. This explains how anuria can be tolerated so long without imperiling life. That the vomiting of hysteria is not always of uræmic origin is also proven by cases in which the vomited matters show no traces of urea. The resistance to energetic medication shown by some hysterical cases is also probably to be referred to the slowness of assimilation. In one of Rossoni's patients, strong doses of pilocarpine, ipicac, and strychnia failed to produce their usual symptoms. Dinian asserts that he has observed in Charcot's

clinic a patient who took with impunity by inspiration two or three litres of ether. Some also show an unusual tolerance of large doses of morphine hypodermically. The fact, that in some cases of hysteria there may be long abstinence from, and vomiting of, food, without any corresponding disturbance of nutrition, suggests a comparison between these and the phenomena of hibernation in animals. Following the suggestion of Charcot, Empereur instituted in 1876 a series of investigations on the condition of the blood, the assimilation, excretion, etc., but the results were not definite enough to remove the subject from the stage of hypothesis. More recently Gilles de la Tourette and Cathelineau have carried on in Charcot's clinic a more extensive and important series of researches (*Progrès. Méd.*, 1888-'89-'90). These authors divide their work into two parts comprehending subjects of normal and pathological hysteria.

H. M. BANNISTER.

EPILEPSY.—This excellent article discusses some unusual features of the disease and some symptoms that are often unrecognized. In speaking of petit mal, the author says: "Petit mal may occur as a visual projection, the most common form being the 'seeing of faces.' I recall an instance of a middle-aged woman who complained of the appearance at intervals of faces causing her much annoyance. This phenomenon was accompanied by a slightly dazed feeling on the part of the patient." The author further says; "A great many of those cases spoken of as 'fainting spells' are unquestionably instances of petit mal. A man came to me recently who for many years suffered from simple 'faints'; very lately he had experienced two severe attacks of grand mal. There has recently come under my notice a woman who during the first seven years of her life had convulsive seizures, so-called 'worm fits.' On reaching puberty and up to the age of 33 she suffered from 'fainting spells' prior to and during the menstrual period, sometimes having several such 'spells' a day. At the age of 33 she developed grand mal and the status epilepticus. In connection with this case I desire especially to emphasize the dictum of Seguin that after the third year eclamptic attacks are very probably epileptic in character, and are quite certainly so if we can exclude syphilis and renal disease. Seguin says, also, that epilepsy may be differentiated

from ordinary syncope by the presence in the former of dilated and fixed pupils and wide open, staring eyes. A few weeks ago I saw in consultation a lady who complained of peculiar rythmical movements commencing in the right leg and involving in turn the arm and the head; over these movements she had no voluntary control. The attack usually lasted but a few moments; there was a defect of, but no loss of consciousness. She acknowledged that she was somewhat dazed when the seizures were more than usually severe. I have under my care at the present time a young man who is greatly annoyed by a strange, indescribable sensation which flashes over him whenever he becomes irritated or greatly excited. He has suffered from this for years, and in the absence of other symptoms I should hesitate to class it as epileptic in nature, yet I regard it with grave suspicion.

SENSATION IN EPILEPSY.—Dr. Féré states (*Mercredi Méd.* Nov. 16, 1892) that local anæsthesia is so frequent among epileptics and degenerates that this symptom is of very problematical use in diagnosis between these states and hysteria.

J. G. KIERNAN.

CONVULSANT LEUCOMAIN IN URINE OF EPILEPTICS.—Dr. A. B. Griffiths recently reported to the Paris Academy of Sciences that he had (*Mercredi Méd.*, Aug. 3, 1892) extracted from the urine of epileptics a leucomaine which produces in animals tremor, involuntary bladder and bowel discharge, pupillary dilatation and convulsion, followed by death.

J. G. KIERNAN.

A CASE OF CHOREA-NEPHRITIS.—An etiological connection between chorea and nephritis not due to endocarditis has not been heretofore reported. A boy, aged 14½ years, developed chorea. Owing to idiosyncrasy arsenic was abandoned. A tonic and dietetic regimen without alcohol and with exercise in the open air was ordered. A week later his face was swollen; this was found to be due to a nephritis. The urine contained ¼ per cent. albumen, with pale and hyaline casts and epithelial cells. Under appropriate treatment the nephritis soon disappeared and with it, step by step, the chorea. The author is inclined to

attribute the chorea to uræmic intoxication, although the urine had been normal 9 months before. (Prof. Thomas, *Deutsche Med. Wochensch.*, No. 28.)

G. J. KAUMHEIMER.

HUNTINGTON'S CHOREA.—Grippin reports a case of hereditary chorea with autopsy, from which he draws the following conclusions: (1). Huntington's chorea is a disease of the central nervous system. Pathological examination shows organic lesions of the brain which closely resemble Hayem's non-purulent encephalitis. (2). The disease is always hereditary. Usually the children inherit the same disease but it may happen that, as a result of the hereditary tendency, neuroses and psychoses are transmitted. (3). The disease usually begins in the third decade of life, less often in the fourth or fifth, and very rarely either earlier or later. Insanity may appear as a complication. (4). The prognosis is always grave. (*Archiv für Psychiatrie*, Vol. 14, No. 1.)

JOS. KAHN.

HEREDITARY CHOREA.—Schlesinger reports a series of observations of hereditary chorea. The first case is that of a woman, thirty-eight years of age, in whom the disease began three years previously, grew steadily worse and ran into paretic dementia. Her father died of hereditary chorea. The second case is that of a man, fifty years of age, who has been sick for two years. During the past year his memory has grown weak and his speech has become defective. Five similar cases have been observed in his family. A child of the patient is an epileptic. In the third series of observations a whole family was affected. Three children developed chorea between the ages of twelve and fourteen. An uncle and a great-grandfather died of the same disease. In addition there were two severe cases of hysteria, one of melancholia, and one of paretic dementia in the family. As a result of his observations the author draws the following conclusions: (1). Hereditary chorea usually begins in adult life, although in a few exceptional cases it may appear in childhood. (2). As a rule, the disease is transmitted from generation to generation, although, exceptionally, one generation may be entirely skipped. (3). It is possible that severe hysteria may occasionally take the

place of chorea in one generation. (4). The disease is progressive and is not favorably affected by arsenical treatment. (*Neurologisches Centralblatt*, No. 19, 1892.)

JOS. KAHN.

ACROMEGALY AND BITEMPORAL HEMIANOPSIA.—Dr. Boltz reports a new case of acromegaly in a man of 41, which presents the unique complication of a bitemporal hemianopsia. The defect was strictly bounded by the vertical meridian. Schulz has reported a case with left sided hemianopsia, Strümpell another without stating whether the defect was in one or both eyes, and Litthauer, a case with concentric contraction of the visual field. To explain this phenomenon we must assume a destructive lesion of the inner fibers crossing at the chiasm. This has been found to be due to fractures of the base, to aneurism of an aberrant artery running under the chiasm, to gumma and to sarcoma of the brain. As an hypertrophy of the hypophysis cerebri has been noted in 4 autopsies on cases of acromegaly, in one even as large as a hen's egg, it is possible that a similar tumor growing in a forward direction may cause this peculiar symptom in this case. (*Dr. R. Boltz, Deutsche Med. Wochenschr.*, No. 27, 1892.)

G. J. KAUMHEIMER.

THE MUSCULAR ATROPHY OF JOINT DISEASE has been proven by Hoffer to be of reflex neurotic origin. He injected nitrate of silver into the knees of dogs and then cut the posterior roots of the lumbar nerves on one side. On this side no atrophy occurred, on the other it did occur. (*Deutsche Med. Wochenschr.*, No. 33, 1892.)

G. J. KAUMHEIMER.

UNILATERAL DESCENDING AMYOTROPHIC DEGENERATION.—The patient was a strong girl of 17, who was absolutely healthy with the exception of the condition noted. The right arm and leg were atrophied, livid and partly paralyzed. The shoulder and elbow were actively and passively movable, but weaker than the left. The fingers were flexed into the palm and drawn toward the ulnar side, the phalangeal articulations being extended. A constant tremor was present. The thumb was not involved. Passive extension was easy. The foot was raised somewhat from the ground and the last four toes, especially the fifth,

strongly flexed toward the sole. On attempting to walk the flexion increased, so that the patient was compelled to walk with the foot in a position of equino-varus. Disorders of sensation or of reflexes were not present. The electric excitability was changed quantitatively only. The extensor muscles of the fingers and toes were atrophied to a greater extent than their antagonists, so that the malposition was due to the preponderance of the flexors. From a minute consideration of all diagnostic points, which is too long to be reproduced here, the author reaches the conclusion that the condition is due to a descending degeneration of the pyramidal tract which had involved the anterior gray horn. This differs from the ordinary amyotrophic sclerosis in its extent, being unilateral, and in the nature of the lesion. Sclerosis is not probable, and, as the trouble was first noticed in the fingers, he attributes the entire symptom-complex to a slowly growing tumor in the anterior part of the right half of the cervical enlargement of the cord, probably a glioma. (*Prof. Adamkiewicz, Wien. Med. Blaett.*, Nos. 26-27, 1892.)

G. J. KAUMHEIMER.

PARAMYOCLONUS MULTIPLEX.—Kahane, at the Vienna Medical Club, reported the case of a laborer, twenty-nine years of age, who had some time previously suffered from pyæmia. The present illness began with violent trembling of the entire body. When admitted to the hospital he presented the symptoms of paramyoclonus multiplex, as described by Friederich. The movements were symmetrical and synchronous, affecting the lower extremities but not the face. Speech was normal. The patient could control the movements by an act of the will. If an attempt was made to forcibly control them in one portion of the body they became worse in another. Under hypnotic treatment the symptoms disappeared only to recur after a short interval. This treatment seemed to depress the patient's mental condition. Kahane believes that the disease was due to hysteria. (*Prag. Med. Wochensch.*, No. 42, 1892.)

JOS. KAHN.

A PECULIAR OCCUPATION SPASM.—Dr. Tranjen describes a case of spasm of the superior oblique and internal rectus muscles of the left eye, occurring whenever the head was

turned to the right. The patient, who was an officer, claims to have contracted the trouble while a cadet. At that time he was, for two years, stationed at the extreme left of his company during drill, and was compelled to over-exert these muscles while "dressing the front." From a study of the position of the head during drill Tranjen believes this to be the true explanation. It is analogous to writer's, pianist's or telegrapher's cramp. (*Berlin. Klin. Wochensch.*, No. 33, 1892.)

G. J. KAUMHEIMER.

ANGIO-NEUROTIC ŒDEMA.—Dr. Legendre reports (*La Tribune Méd.*, Nov. 17, 1892) the case of a thirty-three-year-old man in whom there had occurred, during fifteen years, partial œdemas, localized usually in the extremities (hands, fore-arms, feet and malleolar regions) but sometimes in the scrotum. These œdemas, as a rule, appeared suddenly and symmetrically. They usually lasted about three or four days and disappeared quickly. By their firm consistency, slightly cyanotic state and skin heat, and their rapid cyclical evolution, these œdemas were clearly of neurotic origin. The patient had the facies and emotionalism of a neuropath and suffered at times from the globus hystericus. In the present case the problem was complicated by the existence of interstitial nephritis, slightly advanced, (slight albuminuria, intermittent pollakiuria; co-existing often with the disappearance of the œdema, cryæsthesia, feeble bruit de galop). The source of the nephritis seemed to be a typhoid fever from which the patient suffered three years prior to the appearance of the œdema. The periodical and cyclical character, the seat and the duration of the œdemas, their appearance, and the fact that they did not affect the face or eye region, showed that they were not of albuminuric origin. There were no evidences of a rheumatic origin. The hereditary antecedents were neuropathic, not arthritic.

J. G. KIERNAN.

ANGINA PECTORIS NERVOSA IN THE MALE.—Dr. A. Peyer has found numerous patients presenting the symptoms of a cardiac neurosis, as stabbing pains, palpitation and oppression, to be suffering from sexual neurasthenia. On treating the genito-urinary organs the cardiac symptoms promptly disappeared. He gives the history of eleven cases. A care-

ful inquiry into the previous history of the subject will be of great assistance in diagnosis. (*Wien. Med. Presse*, No. 27, 1892.)

G. J. KAUMHEIMER.

PROPULSION AND RETROGRADATION.—Dr. Lebrau (*Presse Méd. Belge.*, Aug. 28, 1892) has observed the case of a non-neuropathic, non-alcoholic, tobacco-using man who, at the age of seventy, experienced an involuntary tendency to run rapidly forward. This disappeared but two years later he had a similar tendency to run backward. This often caused him to fall. There were no other symptoms except "tobacco heart." Lebrau believes that the action of tobacco upon the heart sufficed to produce mesencephalic circulatory disorders which were the cause of the symptoms present.

J. G. KIERNAN.

ISCHIAS SCOLIOTICA.—The complication of sciatica with a deviation of the spinal column does not seem to have received much notice in this country. A number of Continental authors have reported cases and it seems to be of relatively frequent occurrence there. In connection with the description of five new cases Dr. Higier (*Deutsche Med. Wochens.*, No. 27, 1892) reviews the various theories put forward to explain this phenomenon. It may present great diagnostic difficulties. Albert has recorded the case of an anæmic, cachectic man in which he gave a grave prognosis on account of supposed advanced caries of the vertebræ. To his surprise, a few years later he met his patient doing service as a soldier with no trace of his former deformity. The scoliosis may be heterologous with the concavity toward the sound side, which is the most frequent form, or homologous with the concavity toward the same side as the sciatica. Remak has recorded a case where the patient was able to transfer the deformity from one side to the other at will with temporary relief to the pain. In addition to the lumbar deviation a compensatory dorso-cervical curve in the opposite direction develops. The deformity may set in with the pain or may occur at any time during its continuance, but usually disappears with it. Charcot, who seems to have seen only cases of crossed scoliosis, claims that this is the typical form and that from it we can always locate the painful side. Babinski suggests that the deviation is

the result of an effort, voluntary or involuntary, to relieve the affected member of the weight of the body and thereby prevent the pressure of the muscles on the nerve. This does explain the homolateral and alternating cases. Brissaud assumes for the homologous deformity an irritation of the motor fibers of the lumbar plexus, causing a spastic contraction of the muscles. Nicoladoni, who was acquainted with the crossed form only, assumes that in the cases accompanied by scoliosis the central portions of the nerve are affected. By bending the trunk toward the sound side the patient puts the inflamed half of the cauda equina in a position in which it is least exposed to pressure. Schüdel assumes that a branch of the first sacral nerve, which supplies the lumbar muscles, is involved in these cases. The muscles being instinctively relaxed the contraction of the muscles on the healthy side produces the deformity. Higier reports the case of a laborer who claimed that at one time during the paroxysms of pains the trunk was bent to the painful side and during the interval toward the sound side. No hypothesis has been advanced which will explain all cases. Higier's article is accompanied by a copious bibliography. Remak (*Deutsche Med. Wochensch.*, No. 27, 1892) also reports a case of homologous scoliosis accompanying sciatica, but explains it by the position of the patient when at work (bent forward and to the affected side) and by unconscious efforts to assume the easiest position. The deformity vanished with the pain.

G. J. KAUMHEIMER.

VASO-MOTOR NEUROSES.—Dr. Tomson has selected the following from a number of allied conditions seen and noted, as they seem to form a somewhat definite series and to illustrate what he believes to be an extensive section of functional disorders, namely, local and general vaso-motor neuroses. From the standpoint of evolutionists, instability of the highest nerve centres is due to their being the most recently evolved. Neurotic people are not dull and stupid, they are often keen and intellectual. Intellectual weakness has been transmitted with intellectual strength. The same disease may be transmitted with equal frequency. Another of the same class is representative of the faulty habit: a parent has migraine, the child epilepsy. In cases of hysteria major described by Charcot, we find such conditions as epilepsy, drunkenness, hysteria and other diseases of same class in

family histories of patients affected, showing a faulty nerve habit or neurotic tendency that is transmitted. Author here gives several cases to illustrate or prove this theory. One patient was subject to attacks of morbid blushing, same patient could not be confined in room without possibility of egress, as it would be certain to produce diarrhœa with watery evacuations. Another would secrete large quantities of pale urine and he would have an uncontrollable desire to micturate. Neither case shows any sign of bowel or kidney disease. Author thinks the large amount of pale urine due to an increase of blood pressure from a temporary dilatation of renal arteries. Another has visual sensations, apathy and languor, flushing of face, violent hemicrania, retching and vomiting. Three other cases have paroxysmal palpitation of the heart without organic disease.—(*Lancet*, Oct. 15.)

B. M. CAPLES.

LOCAL NEURASTHENIAS.—Dr. Weill (*Revue Intern't du Biblio. Méd.*, Oct. 10, 1892) understands by local anæsthesias one or more functional disorders grafted on a cured organic lesion or due to a fortuitous cause, the neuropsychic effect of which alone remains. These may involve the viscera (heart, lungs, stomach, genitals, etc.) and are very curable by suggestion.

J. G. KIERNAN.

EYE-STRAIN AND ITS RELATION TO "CEREBRAL HYPER-ÆMIA," ETC., is the title of an article written by E. C. Seguin, M. D., for the *New York Med. Jour.*, December 3. Eye-strain, more especially that due to paresis or weakness of the third and sixth cerebral nerves, produces many symptoms besides cephalalgia and migraine. Chief among these are: occipital, suboccipital and occipito-cervical pain and distress; a sense of stiffness at the occipito-cervical region; feelings of fullness, pressure or lightness in the head; numbness or formication in the scalp; dizziness (but not true vertigo); inability to read, write, converse, sit at table, or even to think without aggravation of symptoms; fear of certain places; insomnia; emotional attacks; pains in various parts of the head; and, later, the multiple symptoms termed neurasthenia. These symptoms, combined with others, have been appropriated by the advocates of a fanciful vaso-motor pathology, and such "diseases" as "*cerebral hyperæmia*" and "*congestion of the base of the brain*" have been accepted by the profession with too little open

criticism. The author does not recognize these "diseases" but records the symptoms as *cephalic paræsthesiæ*, and offers a partial grouping which may serve as a basis for a better classification. 1. The majority of cases presenting such symptoms are, he thinks, cases of eye-strain. Errors of refraction play but a secondary part in the genesis of the symptoms, whereas they are very important in cases of cephalalgia and migraine. Not rarely, the symptoms appear within a short time, or suddenly, after years of apparently easy use of the eyes. This sudden onset may often be traced to some debilitating influence. In other words, the strain of weak eyes is often rendered latent by perfect health. 2. Some cases of cephalic paræsthesiæ are due to dyscrasic conditions, more especially lithæmia, oxaluria, latent gout, etc. 3. Such symptoms as lightness of the head, pressure in any direction, deficiency in power of attention, etc., may undoubtedly be caused by anæmia of the brain from general anæmia or cardiac diseases. 4. It is also possible that these symptoms indicate the beginning of organic cerebral disease. 5. Probably some cases of cephalic paræsthesiæ are developed by the action of peripheral lesions. Dr. Seguin's chief purpose in this article is to advance the problem as presented in group 1 one step further, and to state which of the symptoms may be caused by paresis of the third nerves and their muscles, and which by paresis of the sixth, apart from the element of refraction.

A. *Symptoms of Paresis of Third Nerves*.—Occipito-cervical pain and "distress" are the characteristic symptoms, sometimes the only ones. Pain is generally diurnal and often does not appear until patient uses his eyes in dressing, etc., and is usually greatest between occipital bone and second vertebra. There is never neuralgia of occipital nerves, nor objective rigidity. Tenderness is rarely found, although in women spinal hyperæsthesia often coincides. Mental failure is simulated in loss of volition. Symptoms are increased by any act requiring convergence. It is sometimes said that symptoms appear or are increased by "simply thinking." When headache is present there are generally faults of refraction or other factors. Simple asthenopia is only occasional and seldom prominent. Usually patient pretends to have strong eyes.

B. *Symptoms of Paresis of Sixth Nerve*.—In contrast with symptoms of class A. these are different and less definite. Dizziness is most prominent, not true vertigo, but a sense of unsteadiness

clearly referred to the head. Allied is a sense of indefinite fear. Peculiar sensations are felt in the head, fullness, pressure, pain in scalp, numbness, etc., and noises in the head, not ears, is not rare. As these paræsthesiæ are increased by moving objects we often meet with conditions similar to agoraphobia and claustrophobia. Movements necessary to examination of eyes in these patients fatigue them greatly. Apparent loss of mental power is more marked than in cases of category A. In quiet of his room patient can do things fairly well, but in his relation to the world he loses self-control and power of concentration. Sometimes he is said to be hysterical and often hypochondriacal. Insomnia and neurasthenia belong to both categories. At this stage diagnosis is obscure. There is a certain overlapping of semeiology in this sketch of the two groups, but the author believes further study will make the distinction more complete. Probably a special grouping of symptoms will be found due to "spasm of accommodation."

Diagnosis by Manipulation.—The simple test of convergence increases suffering of subjects of the first category, while those of the second experience great distress when made to look around without turning the head, or if a bright object be rotated before them. Complete atropinization gives these last patients great relief. *Diagnosis by Drugs.*—Bromide often enables us to judge cases correctly in which hysterical and epileptical symptoms are conjoined. Cases of the first category are relieved by nux vomica or strychnine, and aggravated by belladonna and other mydriatics; whereas the last named remedies give relief in cases of the second category, and strychnine makes them worse. Proper glasses, and in some cases partial or total tenotomy or myotomy, are most important. The internal use of nux vomica, strychnine and nerve tonics generally, in cases of class A., and of cannabis indica, belladonna, atropine, conium, the bromides, antipyrin, etc., for those of category B. will be found most useful. In both, prolonged rest and general restorative treatment are necessary, and sometimes ocular rest by atropinization. Travel should never be prescribed until all visual defects are remedied and convalescence is evident. There are eyes which cannot be "corrected" with our present appliances and in such the prognosis is bad, although temporary improvement may be obtained by proper medicinal and hygienic treatment. Tobacco is particularly injurious to persons whose third nerves are weak.

IMPLICATION OF THE NERVES IN LEPROSY.—A German, aged 40, who had spent several years in Siam among a leprous population, showed a distinct area of leprosy on the left arm. Above the elbow, two nodules as large as filberts were found and extirpated. From one of these a prolongation extended to the median nerve, which was divided. The thickened nerve, as well as the nodule, contained a peculiar cheesy mass. This mass was found to occur throughout the entire course of the nerve. It was removed with a sharp spoon. No loss of function resulted; on the contrary, some improvement of the anæsthesia took place. Later, similar nodules formed on the ulnar and internal cutaneous nerves with the same cheesy contents. The patient gradually regained the use of the arm. The cheesy mass contained leprosy-bacilli. The cutaneous nerve, which was excised, was infiltrated with them.—(*Wien. Med. Wochens.*, No. 31, 1892.)

G. J. KAUMHEIMER.

UNILATERAL LEG PSEUDO-HYPERTROPHY FROM INFLUENZA.—Dr. Annequin (*Dauphiné Méd.*, July, 1892) reports the case of two young soldiers who, soon after recovery from influenza, experienced sharp, darting pains in the leg on attempting to walk. One leg grew rapidly in size and measured at its greatest width three centimetres more than the other. This lasted a great while. Electrical excitability and strength were diminished.

J. G. KIERNAN.

ACUTE PRIMARY HEMORRHAGIC ENCEPHALITIS.—Dr. J. Schmidt reports a case of this rare disease observed during the influenza epidemic of 1889-90. Miss S., aged 19, of chlorotic appearance but otherwise healthy, complained, after an exciting round of social gayeties, of headache for a period of 8 or 10 days. Mar. 8 the headache became violent and was accompanied by vomiting. When first seen, Mar. 9, the only complaint was of general agonizing headache. No abnormality of the cranial nerves, viscera, pulse or temperature was elicited. In the evening an epileptic convulsion followed by slight somnolence occurred. On Mar. 10 the convulsions had become more frequent, longer in duration and more severe. The stupor had increased, P. 120, T. 39.6°C. The pupillary reaction had vanished and there was conjugate deviation of eyes and head to the left.

There was no paralysis. Patellar reflex was present, plantar reflex weak, abdominal reflex absent. Death early in the morning of Mar. 11. Dr. Edinger, who examined the brain, reported as follows: The hardened brain was examined in sections. The head of the caudate nucleus on the left side was a single mass of bloody detritus which reached outward and downward deeply into the nucleus lentiformis. Farther back large and long fissures filled with blood were seen in the corpus striatum and anterior part of the capsule. At a level with the anterior third of the thalamus on the left side, a fissure 1.5 cm. long and filled with blood ran through the posterior limb of the capsule. On the left side the capsule, putamen and nucleus lenticularis, as well as the thalamus, were studded with punctiform hemorrhages. A number of hemorrhagic fissures were found in the ganglion of the right side. The right nucleus lenticularis was deeply stained with blood, but intact except at its posterior part which was converted into a hemorrhagic cavity. The tissue, dorsad and posterior to it, was a mass of bloody debris. While the capsule and the pes were extensively deranged, the remainder of the white substance and the cortex seemed free. A microscopic examination was not made in view of the enormous disorganization.—(*Deutsche Med. Wochenschr.*, No. 31, 1892.)

G. J. KAUMHEIMER,

ANOMALIES OF THE INDIRECT ELECTRIC EXCITABILITY AND THEIR RELATION TO CHRONIC PLUMBISM.—1. In the subjects of chronic plumbism certain changes in the electric excitability can be demonstrated, even in the absence of paralysis of the extensors. The reaction to the positive pole of the opening induction current first disappears, then the galvanic A. S. Z. 2. The loss of the indirect reaction for the positive pole of the opening induction current, and the anode closure of the galvanic current, are the earliest signs of a degenerative neuritis. 3. The investigation of these points should always be carried out in analogous cases. A series of concurrent observations would furnish an aid to the diagnosis of cases of insidious neuritis of typical localization.—(Dr. Karl Gumpertz, *Deutsche Med. Wochenschr.*, No. 33, 1892.)

G. J. KAUMHEIMER.

GASTRIC CRISES.—Riegel, at the Giessen Medical Society, showed a girl, twenty-seven years of age, who for five years had suffered from periodic attacks of vomiting which were severe in character and rebellious to treatment, lasting for days or weeks at a time. The earlier attacks were painless but later there was severe pain in the epigastric region. During the intervals she was perfectly well and no organic disease of any kind could be discovered. There is a suspicion of specific history. In many respects the case is similar to one reported by Leyden in which the attacks were found to be gastric crises, the result of posterior sclerosis. While gastric crises are not infrequently present in the first stage of tabes, it would be extremely rare to have them persist for five years without the development of further symptoms.—(*Deutsche Med. Wochenschr.*, Oct. 6, 1892.)

JOS. KAHN.

PATHOLOGY OF OLD AGE.—Dr. E. H. Grube, of Pittsburgh, says that in autopsies upon bodies of old people a large number of tubercular lesions are found which were not suspected during life. Active tuberculosis is not a prominent disease in old age, but is sometimes chronic. Dr. Grube does not agree with many other physicians that "pneumonia is the scourge of old age," and when this disease exists he does not consider the prognosis much graver than in youth, unless there be great debility from pre-existing disease. Two facts are worth noting in this connection: one, that defervescence by crisis is rare among the aged; and the other, that muttering delirium is almost prognostic of a fatal termination. Changes in the alimentary canal are well marked in old age. Constipation is generally present, but sometimes there is a troublesome diarrhoea. Cancer, especially of the stomach and liver, is frequent. Bright's disease is apt to be chronic and is generally of a fibroid character and likely to be undiscovered in consequence, and the patient is treated for indigestion, rheumatism, etc. The most distinctly senile change is degeneration of the brain and nervous system. In the brain the sulci become shallower, the gray matter thinner, and the brain, as a whole, shrinks. This shrinking is compensated for by an increase of ventricular and subarachnoid fluids. Corpora amylacea appear in the thinned cortex. In the cord and nerve trunks many of the medullary sheaths disappear, giving the sections the appearance of

being full of minute punctures. Conductivity of the nerves is lowered and there is gradual loss of mental power, memory and attention suffering most. When these changes are exaggerated we have either softening or sclerosis, ending in dementia. (*Medical Standard*, December, 1892.)

THERAPEUTICS.

LABYRINTHINE VERTIGO, WITH ESPECIAL REFERENCE TO ITS DIAGNOSIS AND TREATMENT, was the subject of a lecture by C. K. Mills, M. D., delivered at the Philadelphia Polyclinic Hospital. Often the chief complaint of a patient is of dizziness, giddiness or vertigo; less frequently of pitching, reeling or staggering. These terms may indicate the existence of any one of a variety of diseases. Case in illustration—male, aged 52. Two months ago had a sudden attack of what was pronounced “congestion of the brain.” Patient did not fall, but everything looked dark. Quickly recovered, but had another attack of vertigo, reeling and nausea next day. In bed three weeks suffering from severe cephalalgia. Became totally deaf in left ear and partially in right; complained of great roaring in left ear. Now feels dizzy all the time. Has no paralysis nor impairment of common sensibility. Knee-jerk absent on left, but present on right side; muscle-jerk about normal on both sides. Has fits of depression and often cries. Causes.—Four years ago had a sun-stroke which, apparently, did not leave him with marked symptoms of chronic intra-cranial disorder. Has recently recovered from the grippe, since which illness his hearing has been poor. With exception of lost knee-jerk on one side symptoms seem to point to the apparatus of hearing as the seat of the disease. Etiology of case is not positive. Patient has a history of sun-stroke and an infectious disease, each of which sometimes imitates forms of meningitis, and possibly labyrinthine otitis also. Such cases are not improperly called apoplexies, although the seat of the apoplexy is not in the brain but in some portion of the labyrinth. Patient may have bilateral labyrinthine hemorrhages with secondary inflammation. His condition is much improved under larger doses of iodide of sodium. The unilateral absence of knee-jerk in this patient is the only symptom pointing to cerebellar disease, as occasionally in lesions of the cerebellum knee-jerk cannot be obtained. It is not improbable, however, that serious irritative lesions

of both labyrinths might so impress the centres of equilibrium in the cerebellum that the latter would secondarily act to inhibit the spinal centres. An otitis labyrinthica, described by Voltolini, closely resembles meningitis; unconsciousness ensues early, but returns in two to four days. Staggering gait at first which gradually disappears, but incurable deafness is left. Hearing is unquestionably affected by Meniere's disease, but a few cases have been put on record in which all symptoms except deafness were present. While aural vertigo usually means labyrinthine vertigo the labyrinth is not always the seat of the lesion, as inflammation may extend to it from other parts of the ear. It is best, therefore, to consider aural vertigo under the three forms of external ear, middle ear and internal ear vertigo. Following this classification the term, Meniere's disease, should be used to indicate vertigo of the third class. The prognosis of the disease is variable. A few cases, particularly those due to recent inflammation of small extravasations, can be practically cured. In some syphilitic subjects the early and active use of mercury and the iodides is strikingly successful. Indications for treatment are various and local conditions must be considered. If they point to chronic inflammatory disease not only of the labyrinth, but of the external and middle ear also, the treatment should keep this fact in view. Eustachian inflation and cauterization and any of the approved methods of treating otitis externa or media should be adopted in addition to measures for reaching the labyrinth. Some surgeons have met with success in removing the incus and malleus, also the products of chronic inflammation as far as possible. When syphilis is part of the history remedies like mercury and the iodides are distinctly indicated. If rheumatic or gouty diathesis be present, cathartics, alkalies, the salicylic compounds, calcium and lithia salts should be given a thorough trial. Charcot strongly advocates the use of quinine, giving the drug in large doses to the point of marked cinchonism, but discontinues it entirely after full cinchonism has been produced. Occasionally the use of the drug is dangerous. In connection with large doses of quinine there is sometimes a form of vertigo which is malarial in origin, the toxic agent probably acting upon the nervous apparatus of the labyrinth or upon the encephalic centres of equilibration. The salicylate compounds, particularly the salicylate of sodium, have been used in

labyrinthine vertigo for a reason similar to that which led to a use of quinine. Gowers prefers the sodium to quinine and also believes the best effects are produced by moderate doses, as of five grains, three times a day. In connection with this disease the state of induced instability of the cerebellar or other centres of equilibration should not be overlooked. Remedies which are efficient in the reduction of cortical or ganglionic excitability, as the bromides, given in connection with the iodides sometimes relieve symptoms more quickly. Arsenic may be combined with the bromides. Belladonna, aconite, antifebrin, antipyrin and phenacetin may also be tried for their effects upon the centres and the circulation. A variety of remedies have been suggested for the relief of the vertigo and tinnitus of Meniere's disease, most of which are only of temporary benefit. Methods of balancing gymnastics may prove of service in some cases. Local treatment has sometimes a sensible basis for its use and great benefit has occasionally followed counter-irritation or leeching behind or below the ears. Charcot has recommended application of the cautery over the mastoid three or four times a week.—(*The Philadelphia Polyclinic*, September.)

EXALGIN IN THE TREATMENT OF CHOREA.—Loewenthal, in the *Berl. Klin. Wochenschr.*, No. 5, 1892, reports a series of thirty-five cases of chorea treated with exalgin. The dose usually given was 0.2 gm. three times daily; occasionally it would be increased to 1.0 gm. a day. The powder was given dissolved in warm water sweetened with sugar. The age of the patients ranged from three to eighteen years. The course of treatment varied from eight days to four months. The cases that were placed upon the drug early answered well to treatment. In a few patients improvement was noticed after taking twelve powders, but more frequently after from twenty-five to thirty powders had been taken. The largest number of doses given a single patient was five hundred and sixty. The results achieved were good, but no better than those obtained by the use of the remedies ordinarily employed in the treatment of chorea. Nausea, vomiting, lassitude, headache and vertigo were noticed in a few cases. In three cases the patients became jaundiced. These were the only unpleasant symptoms noticed.—(*Bielschowsky, Neurologisches Centralblatt*, No. 19, 1892.)

EXALGIN.—Although many eminent European physicians highly praise the effects of exalgin as a means of relieving pain, especially of the neuralgic type, Dr. W. C. Krauss, of Buffalo, takes issue with them on this point. Dr. Krauss has tried the drug in eleven cases without any beneficial result, and says that the friends with whom he has conversed upon the subject have had similar experiences. The doctor makes no effort to explain the variance between his observations and those of eminent physicians, but simply wishes to protest against the almost unanimous verdict in praise of the drug accorded to it by most medical writers. (*N. Y. Med. Jour.*, Dec. 10.)

BARIUM CHLORIDE IN EPILEPSY.—In all so-called remedies for epilepsy there is something lacking, but barium chloride, in the opinion of Dr. J. D. Lisle, should be given a thorough trial. It is necessary to administer the drug by itself on account of its many incompatibilities. It possesses a bitter, astringent taste and causes a sensation of burning at the epigastrium. It excites active peristalsis of the bowels and copious alvine evacuations. The nervous system is stimulated and it slows the number of heart-beats, at the same time contracting the caliber of the arteries. Its action is similar to digitalis and ergot. The doctor concludes his article by giving the histories of two cases in which barium chloride very perceptibly lessened the number of seizures. (*N. Y. Med. Jour.*, Dec. 10.)

AGATHIN, A NEW ANTINEURALGIC.—Dr. E. Rosenbaum (*Deutsch. Med. Ztg.*, No. 50) reports on this substance which was discovered by Dr. J. Roos. It is a compound of salicylic acid and methyl-phenyl-hydrazin, and occurs in the shape of whitish flakes, insoluble in water, soluble in ether and alcohol, tasteless and odorless. After proving its innocuity in animals it was administered to man in doses of 0.12 and 0.25 gm. without effect. Doses of 0.5 gm., 2 to 3 times daily were more effective. A case of sciatica, which had been previously treated, was cured in 4 days. Rheumatic affections were relieved by 4 to 6 gm. Dr. Laquer reports the cure of a very severe supraorbital neuralgia from the use of 6 gm. in 4 days, and a similar result in a case of influenza-neuralgia. Dr. Loewenthal has used it with success in neuralgias, as well as in rheumatism where

the salicylates had failed. Dr. Rosenbaum reports a number of cases of neuralgia relieved or cured by this drug. (*Wien. Med. Presse*, No. 27, 1892.)

G. J. KAUMHEIMER.

STRYCHINE AND THE BUCCAL-LINGUAL MUCOUS MEMBRANE.—Wertheimer (*Gaz. des Hop.*, Sept. 18, 1892) demonstrates that strychnine exerts a vaso-dilator action on the buccolingual mucous membrane.

J. G. KIERNAN.

HYDRASTIN, according to Egassé, (*Bull. gén de Therap.*, July 30, 1892) is inferior to hydrastinine. Its action upon the vaso-motor is of short duration and feeble. Its action upon the heart is uncertain and dangerous.

J. G. KIERNAN.

RHUS RADICANS IN CHILDREN'S URINARY INCONTINENCE has been found useful by St. Phillipe (*Jour. de Méd. de Bordeaux*, Aug. 14, 1892). He uses the tincture in five drop doses morning and evening.

J. G. KIERNAN.

PIPERAZINE AND URIC ACID.—Biesenthal, of Berlin, affirms that the concurrence of opinion is in favor of the use of piperazine in recent cases of gout, and that even in chronic forms its action is usually favorable. Continued small doses constitute a sure prophylactic. The remedy has proved valuable in renal colic and in hemorrhage from urinary tract. Last mentioned, when of year's standing, has been entirely relieved. (*New York Med. Journal*, Nov. 5.)

C. M. CAPLES.

CHLORALAMID.—In an article by Dr. Jos. Collins on chloralamid he speaks very highly of it as an hypnotic. The concluding portion is as follows: "So much can be said in regard to chloralamid, not alone in regard to its efficacy, but for the safety of its administration and the absence of symptoms produced by the ordinary hypnotics indicating the accumulation of waste products in the system, that the conclusion is forced upon us that in this substance we have an agency for the production of sleep which is deserving of our most sanguine expectations. That it does not replace the other hypnotics is a matter for congratulation, for in the treatment of this distressing symptom our armamentarium

cannot be too complete. In conditions where chloral is indicated but some intervening symptoms contra-indicate its use, such as weak heart and respiration, as in the asthenic stage of acute disease, or in diseases of the heart and lungs, chloralamid can be substituted with safety and with good results."

THE THERAPEUTIC UTILIZATION OF TRIONAL AND TETRONAL.—As a result of extensive trials in Prof. Binswanger's clinic at Jena, Dr. A. Schaefer formulates the following conclusions: "1. Trional and tetronal are of pronounced hypnotic and sedative action. Tetronal seems to be somewhat more sedative than trional. The action begins within 10 to 20 minutes. 2. Trional is a certain and prompt hypnotic in insomnia, and is indicated in the different forms of neurasthenia, in the functional psychoses and organic brain troubles. It has proved useless in cases of morphinism and cocainism and in cases where pain was present. 3. Tetronal is indicated as an hypnotic in those psychoses in which a moderate degree of motor excitement prevents sleep. 4. Neither can be recommended in the severe psychoses with violent motor excitement. 5. The effective dose varies from 1 to 2 gm. but single doses of 3 to 4 gm. and daily doses of 6 to 8 gm. may be safely given. 6. They are best given at bed-time dissolved in milk or wine. 7. No deleterious action, except slight disturbance of the alimentary tract, has been noticed. 8. Unpleasant incidental effects were comparatively rare. 9. Even after prolonged administration a withdrawal was not followed by unpleasant symptoms. Habituation was not observed." (*Berlin. Klin. Wochensch.*, No. 29, 1892.)

G. J. KAUMHEIMER.

DUBOISINE.—Dr. E. Belmondo (*Rivista Sperimentale*, XVIII, II, 1892) reviews the more recent literature of duboisine which has appeared since the publication of his own paper in the preceding issue. From his review are taken the following: Selvatica-Estense (*La Terapia Moderna*, 1892, Nos. 6 and 7) has employed duboisine in the psychiatric clinic of the University of Padua in twenty-two cases of various forms of psychosis and found it to produce quiet sleep, lasting 6 to 8 hours, in all the cases. He employed it hypodermically, giving it in the evening, the natural hour for sleep, and Belmondo remarks that its hypnotic effects seem

to have been the principal object of Selvatica's study. He himself considers this action of the drug as only secondary in importance; its sedative action in states of psychic exaltation, usually most violent in the day time, is superior to that of any other drug. Selvatica observed no bad effect on the pulse or respiration or any other injurious action, save in one case, of a hypochondriac in whom visual hallucinations and a state of motor unrest of short duration followed the injection of .0012 gm. of sulphate of duboisine. His maximum dose is the same as that recommended by Belmondo, viz., .0016 gm. and the minimum .0008. The paper of Selvatica is of interest further, in that it contains the results of a series of experiments as to the action of duboisine upon the circulation. Frogs, rabbits and dogs were the animals experimented upon and the results are summed up as follows: (1). Duboisine acts upon the heart similarly to atropine but with much less intensity. (2). It is an important vaso-motor agent, causing hyperkinesis of the peripheral vessels and dilatation of the central ones, by thus exerting a direct action on the heart. (3). Duboisine does not seem to be contra-indicated generally in cardiac disease as it lowers the blood pressure only within very restricted limits. It appears, therefore, indicated even more than atropia when there is a permanent slow pulse with vertigoes and syncope, and in arrhythmia, that preserve a sort of regularity in their succession and are not connected with organic disorders of the heart. Venanzia (*Il Morgagni*, July, 1892) has tested duboisine in the Casa di Saluti Dufour, in Milan, and he also fully confirms the utility of this drug in controlling psychic and motor excitement of whatever grade or form. It is equally useful in mania, active melancholia, dementia agitata and neurotic insanity; and the author calls special attention to its slight utility in the expansive periods of acute or chronic encephalitis. Besides its calming effect in motor excitement, Venanzia observed that it seemed to clear up the intellect and after a fashion to regulate the ideation, a point noticed already by Belmondo. In a few patients Venanzia found a slight idiosyncrasy as regards this drug, producing dryness of the mouth, thirst, anorexia or slight headache, all of short duration. He makes a special point of its usefulness as a sedative, *superior to all others in promptness and efficacy*, and its only secondary value as an hypnotic. In insomnia of the so-called idiopathic form, and in the agrypnia that

accompanies certain stuporous conditions, it is, indeed, of little value. The minimum dose, according to Venanzia, is about .0005 gram ($= \frac{1}{133}$ grain) to be increased gradually to the maximum .0015 ($= \frac{1}{45}$ grain) or perhaps a little more. He finds these amounts sufficiently active. In France, also, the use in asylums of this drug has been recommended. At the third congress of French alienists at Blois, Mabilie and Lallemand reported decided benefits from its employment in maniacal forms of insanity. They used hypodermic injections four hours before and after meals, beginning with .0005 gm. and not exceeding a total of .003 in the twenty-four hours. After six or seven days of the treatment they advised its discontinuance renewing it, if necessary, after a week. They found it effective in seventy-five per cent. of their cases and most so in females. They consider doses from .0005 to .001 gm. as sedative, above that as hypnotic. Belmondo criticises the large doses of the French authors and holds that such are liable to produce grave toxic symptoms. In conclusion, Belmondo considers from all the evidence that we have a valuable therapeutic acquisition in this drug. He is inclined to hold, with Venanzia, that from its marked effect upon the psychic, and especially the intellectual functioning, it gives promise of being of special curative value in mental disorders. He also calls attention to another application of the remedy, not without value. From his own experience and that of Albertoni and Guilliardé, communicated to him by them, it appears to have the power to cut short almost at once the convulsive attacks of hysteria.

NEW USES FOR SULPHONAL.—Sulphonal appears to have been of value in controlling such symptoms as reflex spasm and uneasiness following injury. Dr. Andrews speaks of sulphonal as a certain remedy in treatment of muscular cramps of legs appearing during night, and especially those accompanying fractures of long bones. Fifteen grain doses give immediate relief. Dr. Althos (*Am. Jour. Med. Sci.*) recommends sulphonal for insomnia occurring in treatment of psychoses following influenza.

B. M. CAPLES.

SULPHONAL.—Von Salkowski, Jolles and Hamerston have found hæmatoporphyrin in the urine of patients taking sulphonal, and they hold that it is directly caused by its

exhibition. This conclusion was natural because hæmatoporphyrin had been found in the urine but seldom, and outside of sulphonal nothing was known to produce it. Certain experiments would indicate, however, that these observers are mistaken. Sulphonal has been given to dogs in gradually increasing doses until death resulted, but in no case did the urine contain hæmatoporphyrin. In man, after the drug has been given in large quantities for many months, the urine shows the presence of hæmatoporphyrin in but a comparatively small number of cases. More recently a number of cases of hæmatoporphyrinuria have been reported in which sulphonal had not been used. Garrot finds that it is not uncommon in arthritis and in chorea, and reports fourteen cases in which sulphonal had not been given. It is possible that sulphonal produces hæmatoporphyrinuria in cases in which a predisposition already exists, just as salicylic acid may produce albuminuria when the kidneys are already affected. It is safe to say that where hæmatoporphyrin is found in the urine after the moderate use of sulphonal, the trouble is not due to the toxic action of the sulphonal alone. (F. Goldstein, *Deutsche Med. Wochensch.*, Oct. 27, 1892.)

JOS. KAHN.

TWO CASES OF TETANUS TREATED BY ANTIPYRIN.—Cavina and Venluroli record two cases in which administration of antipyrin in large doses seemed to contribute largely to ultimate recovery of patients. Chloral was given at same time but authors think that drug not the essential part of the treatment, for the spasms were only modified so long as the antipyrin was taken and recurred when chloral alone was given. Other cases have been reported in which antipyrin was successful in tetanus, and it may well be that even if it be not actually curative, it does good by enabling the patient to live through what would otherwise be the fatal course of the disease while the toxin is being eliminated by the ordinary method. (*British Med. Journal*, Oct. 15.)

B. M. CAPLES.

ON A METHOD OF CURING EVIDENT EXPERIMENTAL RABIES.
—Tizzoni and Centanni report the results of experiments upon the treatment of experimental rabies at a time when its symptoms are plainly evident. Tizzoni, in a previous

paper, has reached the following conclusions: 1. The blood of immune animals will prevent the occurrence of rabies if injected either before, or within 48 hours after infection. 2. The action of blood serum is that of a true internal disinfectant, destroying the virus present in the organism. Later experiments showed that the serum of immune rabbits, administered to infected animals from the seventh to the fourteenth day by either hypodermic, intravascular, or peritoneal injection, would cause the disappearance of all symptoms, the animals remaining well at periods varying from 75 to 145 days. The quantity administered varied from 11 to 26 ccm., in doses of 3 to 5 ccm. Control experiments showed that the cords of animals infected on the sciatic nerve possessed virulent properties on the seventh day. By special methods, of which a more extended report is promised, the authors succeeded in obtaining from the cord of rabid animals an immunizing substance. This substance will prevent the appearance of rabies in inoculated animals as by the Pasteur method, but, like it, will not cure pronounced rabies. The authors are anxiously awaiting an opportunity of testing this therapeutic measure upon a human being. (*Deutsch. Med. Wochenschr.*, No. 27, 1892.)

In No. 30 of the same journal the authors publish further reports on the same subject. The curative substance was obtained from the serum of animals which had proven refractory to subdural or endovenous inoculation and were, consequently, thoroughly immune. The serum was mixed with 10 volumes of absolute alcohol and the resulting precipitate dried in vacuo over sulphuric acid. The precipitate from 14 to 21 ccm. of serum, weighing between 0.9 and 1.30 gm., was given in 5 or 6 doses dissolved in a small quantity of sterile water. This gave a yellowish gummy fluid. The experiments were practically identical with the previous ones. The injections were never made before the seventh day. The animals so treated were living from 60 to 80 days after infection. The control animals died of rabies between the sixteenth and the twentieth day. This precipitate, dissolved in water, will also destroy the virulence of the cord of a rabid dog mixed with it in a test tube. No attempt was made to determine a minimum dosage. The dosage in man must be determined by direct experiment.

UNTOWARD EFFECTS OF NERVOUS TRANSFUSION.—Dr. Grand-Clement has, following Dr. C. Paul, used (*Mercredi Med.*, August 10, 1892) injections of nervous substances in neurasthenia. He gave six injections during six days; three in the left lumbar region and three in the internal aspect of the left fore-arm. After each of these injections there had resulted a sort of semi-paralysis of the member of the side injected. The fore-arm flexors had lost some contractile force, and this loss diminished gradually. There was no constitutional benefit.

J. G. KIERNAN.

TREATMENT OF EPILEPSY AND NEURASTHENIA BY THE SUBCUTANEOUS INJECTIONS OF NORMAL NERVE SUBSTANCE.—Prof. V. Babes, of Bukarest, has noticed that several patients who had been treated with Pasteur's antirabic virus reported that various nervous troubles, as neurasthenia, epilepsy or hysteria, had ceased or become much milder. He himself and an assistant, who had used the inoculations prophylactically, had been relieved of pronounced spinal neurasthenia after their use. Assuming that the nerve substance, and not the virus, was the cause of the improvement, further experiments were made on two neurasthenic persons with gratifying results. A patient with beginning locomotor ataxia reported relief of pain, although great excitement, pollutions and other symptoms of irritation supervened. At this time Dr. Constantin Paul, of Paris, became acquainted with the method, which was turned over to him for systematic clinical trial. In his report to the French Academy of Medicine, Paul calls it "le procédé du Prof. Babes". Babes' method differs somewhat from that of Paul's. Babes presses the carefully obtained cord and brain through several layers of earthenware and prepares an emulsion of the resulting liquid with five parts of bouillon. Paul mixes the material with glycerine and filters under pressure of CO_2 . Extreme asepticity is necessary. The neurasthenic patients received four or five, the epileptics five or six injections weekly. The dose of the emulsion (one to five) was from four to five gm., injected under the skin of the abdomen and sides. Babes gives clinical histories of ten cases of neurasthenia which improved with surprising rapidity. Adjuvant treatment was used as with other methods. One of his assistants was cured of a sciatica of a month's standing by three injections. A case of severe progressive lype-

mania recovered after ten injections. Locomotor ataxia, Jacksonian epilepsy and myelitis were not benefitted and sometimes made worse. One light case of tabes was, however, benefitted. He then gives the histories of six cases of epilepsy, two adults, two adolescents and two children. The duration was from one to fifteen or more years, the frequency of the fits varied from once a week to seven or eight per day. Improvement was prompt in all cases. Eleven other cases in which the fits occurred at greater intervals, are still under observation. Babes believes the good results to be due to the introduction of a quantity of extractive of the brain and cord, stimulating the nerve centres to a regular healthy action. He protests against the identification of his method with that of Brown-Séquard. (*Deutsche Med. Wochensch.*, No. 30, 1892.)

G. J. KAUMHEIMER.

TESTICLE JUICE IN THERAPY.—Deponx (*Mercredi Méd.*, Oct. 26, 1892) reported, at a recent meeting of the Paris Biological Society, the case of an officer who had been prematurely retired because of luetic locomotor ataxia. There were decided symptoms of the neurosis when the patient came under Dr. Deponx's care. Under hypodermatics of testicular juice the symptoms disappeared and he could be regarded as having recovered. The pupillary reaction to light was rather indolent. The gait had become seemingly normal. Brown-Séquard said that the case was confirmatory of several he had reported. The knee-jerk often in such cases remained absent, but this was not of the grave significance ordinarily assigned to it. Dr. Brown-Séquard had observed the case of a much depressed female, far advanced in pregnancy, whose foetus had ceased its movements. Hypodermatics of testicular juice not only caused decided improvement in the mother, but the foetal movements rebegan and exceeded their previous intensity.

J. G. KIERNAN.

THE TREATMENT OF MYXŒDEMA.—In the *Rivista Sperimentale di Freniatria e di Medicina Legale*, XVIII, II, Aug. 15, 1892, Giulio Vassale critically reviews the recent literature of the treatment of myxœdema by injections of the thyroid juice. The papers of Murray Fenwick and Beatty were noticed in his own former memoir and the following later

publications are here reviewed by him. Carter (*Brit. Med. Jour.*, Apr. 16) reports a case of myxœdema and insanity treated with injections of extract of the thyroids from the ox and pig. The patient was a married woman, 43 years of age, who, with all the typical symptoms of myxœdema, was subject to periods of severe maniacal excitement. The patient had been four years in the asylum. The injections were first given Oct. 21, 1891, and were kept up, twice a week, till Feb. 7, 1892. After the fourth injection the patient appeared calmer, and after the sixth the facial expression was improved and the skin seemed nearly normal. At the end of 1891 the physical symptoms of myxœdema had nearly disappeared and the speech was normal. Although the effect of the injections was mainly on the bodily condition there was also some mental improvement. The author publishes pictures of the patient before and after treatment, illustrating its effect. A case of myxœdema, wonderfully benefitted by injections of thyroid extract, was presented to the Clinical Society of London by Davies (op cit.) on the 22d day of April, 1892. Macpherson (*Edinb. Med. Jour.*, No. 5, 1892) describes the case of a woman, aged 39, suffering from myxœdema and treated by thyroid grafting. The disease was of three years standing and the mental syndrome was that of stuporous melancholia with terrifying hallucinations. Extremities cold and œdematous, refusal of food, marked lethargic tendency, movements sluggish, tendon-reflexes exaggerated. The face had a waxy look, the tongue was enlarged and flaccid showing the dental imprints, and speech was difficult. Supra-clavicular œdema marked, hair and nails characteristic of the disease, extreme anæmia and headache. The menses appeared every fifteen days and lasted a week. The urine was scanty. The author obtained a lobe of the thyroid from a freshly killed sheep and dividing it into two parts he grafted each of them under the skin in the infra-mammary region of each side. The improvement of both mental and bodily symptoms was rapid and progressive. Speech became fluent, the melancholia and headache and the terrifying delusions all disappeared. The anæmia and dysmenorrhœa likewise disappeared, and the skin took on its normal condition. The improvement is credited to the absorption of the thyroid juice rather than to the assumption of the functions of the gland by the transplanted portions. Brown-Séquard and D'Arsonval reported to the Academy of Sciences, Paris, June 13,

1892 (*Semaine Méd.*, June 22, 1892) the cases of two subjects of myxœdema in the service of M. Bouchard, treated by the injections of the thyroid juice, with the result that scarcely any traces of the disorder remained after ten days treatment. On July 2, Brown-Séquard presented to the Soc. di Biologie in the name of Dr. Chopinet, a case of myxœdema cured by these injections. The disease was of many months duration; the treatment was begun in December, 1891. By an anatomical error the thymus gland was substituted for the thyroid at first and no results obtained, the morbid bodily symptoms increased, and by March, 1892, were very pronounced. The mind, however, suffered little, only a slight loss of memory and quick fatigue of the brain rendering prolonged efforts at reading or conversation painful were observed. The facial expression, nevertheless, was that of hebetude, due to the infiltration of the tissues. In April, treatment with massage and the continuous current was instituted, with the result of reducing the swelling of the limbs, but the skin of the head and neck became more thickened and the attacks of feeling of oppression more frequent and severe. Having by this time found out the mistake previously made it was determined to reinstitute the former treatment by hypodermic injections. The first injection of thyroid juice was made May 2 and the treatment was continued till June 20. By May 10 improvement was under way, the tumefaction of the face, scalp, lips, eyelids, cheeks, tongue, etc., was lessened. The speech, mastication and deglutition became easier, the attacks of oppression less frequent and severe and had ceased completely by June 1. The appetite and digestion improved. On June 21 the patient's condition was altogether changed, physiognomy and expression almost normal, the speech and deglutition unembarrassed. Gley, at the session of the Soc. de Biologie, July 16, 1892, called attention to the effects of thyroidectomy in animals as inducing many of the lesions of myxœdema, and referred to the case of a woman in Bouchard's clinic that had come under his observation, probably one of the same noticed by Brown-Séquard and D'Arsonval. Charrin, confirming the observation of Gley, added that the woman in question was greatly benefitted by hypodermic injections of thyroid juice from the ox in aqueous solution with boric acid or naphthol. This improvement consisted not merely in relative changes in subjective phenomena, (memory brighter, less pain in

movements, less sensibility to cold, speech easier) but also in visible objective symptoms. The interruption of the injections suspended the improvement. Recently Dr. Breck (*Jour. de la Soc. Regale des Sci. Méd. de Bruxelles*, 1892) has published the account of a case of a young woman, aged 24, treated by this method. The disease dated back many years and all the bodily symptoms of myxœdema were associated with grave psychic symptoms. In all, twenty-eight injections at varying intervals (the least three days) were made between Jan. 3 and May 10, 1892. The bodily symptoms showed the greatest improvements under this treatment. After the third injection the diuresis was considerably augmented and the patient at the same time complained of thirst. The œdema disappeared completely and the weight diminished nine kilograms. The osseous prominences reappeared, the expression became more intelligent, the attitude changed as did also the appearance of the hair, which became normal. The skin, at first pale, became ruddy. In a psychic point of view the improvement was much less evident, still a notable change for the better was observable. The affective feelings were awakened, the patient appreciated the reason of correction and promised improvement, ceased to be untidy and regained control of defæcation and micturition. The extract used by the author was prepared according to the direction given by Murray. The thyroid was carefully cleaned from its connective and adipose tissue with aseptic instruments, and then cut into small pieces with scissors. These are put into a sterilized test tube with two cubic centimetres of a mixture of equal parts of a weak solution of phenic acid (0.5%) and glycerine, and left for twenty-four hours in a cool place. After this the solution is filtered and strained through a fine cloth previously sterilized. In this way are obtained about three cubic centimetres of liquid which is used for two or three injections at varying intervals, the minimum two or three days. Prepared in this way the liquid seems to have a very decided effect, which is not lessened by the small quantity of phenic acid. The genuineness of the action of the thyroid extract seems to be beyond question clean from any suspicion of the action of suggestion, to which the effects of other animal extracts have been referred. The observations upon the human subject fully confirm the result of experiments upon the lower animals, and indicate that we have in the extract of the thyroid gland a remedy for a

disorder hitherto rebellious to treatment. As to the interpretation of this beneficial action, Vassale suggests that the thyroid acts by transforming the products of tissue change and making them easily eliminable. The recent researches of Godart and Slosse (*Jour. de la Soc. Royale des Sci. Méd. de Bruxelles*, 1892) support this view. These authors, under the direction of Prof. Heger, made fistulæ into the thoracic duct of large dogs and collected the lymph that flowed in a given time, then after an injection of thyroid juice they again collected the lymph, the conditions of the experiments being always the same. The quantity and quality of the lymph are altered from the first minutes after the injection and take on their primitive character only after a variable period. The thyroid juice, therefore, is a lymphagogue substance, analogous to those of Heidenheim. That physiologist, as is known, demonstrated that the production of lymph is not brought about solely by filtration, but that there are certain substances, for example the extract of crab muscle, that cause an increase of the quantity of lymph that passes from the blood for the tissues; the tissue elements are bathed more abundantly in the liquid and the amount of lymph flowing from the thoracic duct is increased. Other substances, urea, glucose, iodide of potash, likewise cause an increase but in a different way, as they draw the water from the tissues and cause it to be eliminated, either indirectly by way of the lymphatics, or directly by the veins, thus causing increased diuresis. The thyroid juice will belong to this second order of lymphagogues of Heidenheim. Urea (a lymphagogue of this second order) also, according to Vassale's experiments, exercises a beneficial influence in thyroidectomized animals. As regards the treatment of myxœdema the question arises, which is the better, the injections of the extract, or transplantation of the thyroid substance itself? According to Macpherson the latter is preferable. By it we have the same benefit as with the injections and the chance that a small part of the gland, if not all, may attach itself and enter into function, thus supplying the system's needs. This last consideration alone is enough to give it the preference. The grafting of the gland into the peritoneal cavity, and more especially between the fascia and the the peritoneum, has been successful in animals (Eiselberg, *Berliner Klin. Wochensch.*, No. 5, 1892). The transplantation subcutaneously of glands belonging to different species is naturally much more difficult. In spite of

all precautions suppuration is liable to take place, as occurred with Macpherson. There are, therefore, some dangers in the procedure. In the injections, on the other hand, with fresh material and proper antiseptic precautions the dangers are insignificant. If taken in the beginning there is reason to hope that the morbid process that led to the partial atrophy of the gland may be arrested, and the disorder completely and permanently cured. In a more advanced stage of the malady not all the symptoms (psychic) can be completely relieved. The nervous system may have so long suffered from the injurious influence of the suppression or deficiency of the thyroid function that it cannot fully recover, and it may be that the alteration of the gland is such that it can never take on again its functions. The effects of the injections in these cases can be expected to be only partial or transient.

H. M. BANNISTER.

THE TREATMENT OF NERVOUS DISEASES BY MECHANICAL VIBRATIONS.—Charcot observed that patients afflicted with paralysis agitans were greatly relieved by taking long journeys on the railway or by driving; has had a mechanical arm-chair constructed that gives the same motion as a railway carriage when the train is running. After passing a short time in the chair the patients sleep peacefully, the trembling disappears, and stiffness in movements ceases. (*British Med. Jour.*)

B. M. CAPLES.

SURGERY AND TRAUMATIC NEUROSES.

BRAIN-SURGERY. In *The Medical News* for December 3 and 10, Dr. Roswell Park gives the histories of several cases upon which he operated, and summarizes his convictions and reflections upon brain-surgery as follows: "1st. We have not yet learned the possible limits of brain-surgery, so-called, or the possible limits to which we may with reasonable certainty interfere with the functions of the brain or its component parts. Final knowledge in this respect will come rather through clinical experience than through experimental investigation. 2d. I have had a number of brain cases whose history shows that at the time of reception of injury the symptoms were so serious and

severe as to lead the medical attendants to consider the case hopeless, so that practically nothing was done. I wish to say all I can to condemn this apathetic course, and to urge that the most desperate case be attended to at once, with the same attention to detail as though it were quite hopeful in its outlook. 3d. In many of my own cases, and my experience is like that of many others, the mental or other disturbance that has finally led to operation has been allowed to run along, often for years and years, and patients have been brought to the surgeon only as a last resort. This course is as unwise in these cases as when we deal with malignant disease, and the profession generally should learn that the prognosis would be much more favorable in such cases were they operated upon when these disturbances first make their appearance. 4th. Personal experience has convinced me that when I have erred in operating for epilepsy or psychic disturbance, it has rather been on the side of doing too little than too much. For instance, in one of the cases alluded to under the caption Epilepsy, in which no improvement was manifested, I am now sorry that I did not take out so much of the arm-centre as to produce at least temporary paralysis of the arm. In other words, I have never regretted doing too much, but in several cases have regretted not doing more than was done. 5th. I wish again to insist upon the necessity of long-continued medicinal and dietetic treatment after these cases have passed out of the hands of the surgeon."

TWO VERY LARGE CEREBRAL TUMORS.—Case 1. A man, aged 29, came to Prof. Hitzig's clinic complaining of intense headache on the right side of the forehead since the summer of 1891. This he attributed to a fright he had received some time previously but later admitted that he had been struck. In October, 1891, while in a tavern his cigar dropped from his left hand and his face was drawn to the left. Since then he had had four or five similar attacks followed by a slight, though distinct, weakness of the left hand. The left leg was not involved. In November the headache increased and he complained of visual difficulty which he very accurately described as a right temporal hemianopsia. Examination, later, showed only a very great contraction of the visual field and choked disc. Vomiting had never occurred. April 21, 1892, when first seen, the

head was held to the left and forward. Pupillary light reflex slow, the accomodative reflex was better. The facial muscles on the left side were paretic as well as the left arm, and, in a slighter degree, the left leg. Patient was decidedly stupid. Sensation was normal. The patellar reflex was increased, especially on the left side, which also showed ankle clonus and increased skin reflexes. The region of the right temporal muscle was swollen, doughy and tender. The pulse was normal or even a little fast. Prof. Hitzig diagnosed a tumor of the right frontal lobe and referred him to Prof. v. Bramann for operation. The bone was found to vary in thickness, being in some parts as thin as paper, in others 1 cm. thick. In order to remove the tumor an opening, measuring 11 cm. vertically and 9 cm. horizontally, was necessary. The tumor, which was surrounded by healthy brain, was shelled out by the finger. Prof. v. Bramann said his finger entered the lateral ventricle. The patient recovered from the operation promptly, being but little worse than before but certainly with a longer expectation of life. The tumor, which was a mixed sarcoma, weighed 280 grammes, while Hitzig assumes for the cerebral hemisphere a weight of 640 grammes. Case II was that of a man, aged 47, who had received a blow on the head one and one-half years before. The symptoms were, in general, those of a tumor of the right motor region. On December 27, 1891, Prof. v. Bramann removed a cyst the size of a duck's egg, which proved to be a portion of an infiltrating cystosarcoma. Large masses of the tumor were removed at two subsequent operations. July 8, 1892, both patients were alive. (*Berlin. Klin. Wochensch.*, No. 29, 1892.)

G. J. KAUMHEIMER.

CRANIECTOMY IN IDIOCY.—Dr. E. Regis (*Jour. de Méd. de Bourdeaux*, July 31, 1892) reports three cases in which craniectomy had good results in idiocy. He strongly advises the transferrance of such patients after their recovery to an idiot school for special training.

J. G. KIERNAN.

PARACENTESIS IN SYRINGOMYELIA.—Drs. Abbe and Culey report the case of a man presenting incomplete spastic paraplegia, specially localized, pathic, thermic and tactile anæsthesia and allochiria, the complex symptoms suggesting the existence of partial transverse myelitis below the

level of seventh dorsal vertebra. Exploratory operation disclosed a fusiform enlargement of cord between eighth and eleventh dorsal vertebra. After one and one-half drachms of a clear watery fluid was withdrawn the swollen cord collapsed. Recovery from operation complete. At end of second week spasms and rigidity of legs diminished and some control over bladder and rectum was regained. There was no further relief. Death occurred six months later. (*Jour. Nervous and Mental Diseases*, July.)

B. M. CAPLES.

OPERATIVE TREATMENT OF COMPRESSION OF THE CORD DUE TO DISLOCATION OF THE VERTEBRÆ.—A temporary resection of the spinal cord has twice been successfully done in Thiersch's clinic. After the muscles are loosened the arches are divided with a chisel close to the body. The cord can then be pushed aside and the projecting body chiselled off. The cases were of six and nine months duration, respectively. Prompt resumption of function followed, except that in the first case the muscles of the right thigh remained paralyzed. In two cases of spondylitis which had run their course, the result was negative. Israel states that in some cases he does not attempt accurate replacement of the bones, in order to allow the cord to expand. (*Deutsche Med. Wochenschr.*, No. 33, 1892.)

G. J. KAUMHEIMER.

THE SURGICAL TREATMENT OF CONTRACTURES is the subject of a paper read before the Brooklyn Surgical Society, by A. T. Bristow, M. D. Although most physicians believe these contractures to be irremediable, the author differs from them in thinking that much may be expected from surgical interference. He classifies the cases broadly as being cerebral, spinal or peripheral in origin. The first class is largest among children, and, while usually following birth-palsy, is also secondary to lesions developed during childhood. The second class consists of cases that result from sclerosis, either in the lateral or anterior columns. (Contractures following anterior polio-myelitis are not here considered.) The lateral-column sclerosis producing active spasm and contracture form about forty per cent. of the whole number of cases in infantile spinal paralysis of sclerotic origin, and for these it is necessary to put in a plea for the surgeon. The few cases following injury to a nerve

trunk form the third class. The author believes in dividing all structures that offer resistance to free joint-motion, as medical treatment, whether in the form of drugs or electricity, is useless, and it is futile to expect relief of contractures in spastic cases from the use of apparatus *while the spasm and contracture persist*. In considering the advisability of operation four questions must be answered by the surgeon: 1. Is relief possible in other ways? 2. Does the operation endanger life? 3. If unsuccessful will it render the condition of the patient worse than before? 4. How permanent is the relief expected as a result? The first three questions may be answered in the negative. The few cases upon which the author performed tenotomy and myotomy did not relapse. He does not claim that tenotomy or any other operation can restore histologic elements of the brain or cord that have been strangled by sclerotic processes, but the deformities that result therefrom can be relieved. The contractions are primarily due to central lesions, yet may it not be possible that their permanence depends upon the altered nutrition of the muscles themselves? Muscles that have long ceased to respond to volition have, under the influence of strong emotion, suddenly answered when called upon. If unconscious repair can take place in non-spastic cases, it is evident that in the spastic cases an organic contracture with coexistent spasm is an insuperable obstacle to the exercise of muscles that might otherwise respond to volitional impulses. The irritative processes set up by the primary disease may subside, yet, because of structural changes in the muscles, spasm and contracture still exist. Dr. Bristow gave the histories of three cases illustrating his classification. Case I had been attacked with lateral-column sclerosis at the age of three; at eleven years of age had contracture of the gracilis, semi-membranosus and semi-tendinosus of both sides, as well as both gastrocnemii and peroneals. An attempt to walk brought on intermittent spasm of all these muscles and it was impossible for him to straighten the legs at the knee. The doctor divided tendons of all contracted muscles, twelve in number, one year ago. Operation was subcutaneous and recovery uneventful. Spasm and ankle clonus have not returned and child is able to walk a little on crutches. He also stands upright and improvement is on the increase. Case 2 belongs to the cerebral-spastic class. Boy, aged sixteen, had contractures from hemiplegia, the muscles chiefly affected being the

flexors of wrist and fingers. Dr. Bristow performed an open operation upon the flexors carpi ulnaris and radialis, splitting and suturing their tendons. Wrist has remained straight and contractures have not returned during the two months since operation. Case 3 was a *main en griffe* resulting from gunshot wound destroying ulnar nerve, with consequent wasting of the interossei and remaining muscles supplied by that nerve. Curiously, however, there was contracture of the flexor carpi ulnaris. This was divided and wrist straightened, but permission was given to divide only the tendons of the middle and ring fingers. This was done with perceptible gain, still, although vincula had also been divided, these fingers could not be entirely closed. This case was of eight years standing and probably further closure of fingers was prevented by adhesions or altered joint relations. Dr. Bristow concludes as follows: "Finally, I do not bring forward tenotomy in these cases as the one and only thing necessary to a cure. With the relief of the contracture and deformity the real treatment may be said to commence. This is the foundation stone. It is absolutely essential, but it is only the beginning of the treatment. Afterward, electricity, massage, suitable prosthetic apparatus, all have their proper places and uses. Without them the case will almost certainly relapse into its previous helpless condition even though the contractures do not return. I am confident that with tenotomy and appropriate after treatment there are few of these cases that cannot be at least greatly improved. Absolute cure we can expect in very few." (*The Medical News*, Oct. 15.)

CHANGES IN THE NERVES AND SPINAL CORD AFTER AMPUTATION.—Marinesco reviews the literature of the subject, including observations on the human body as well as on animals, and reports three cases with autopsies from which he draws the following conclusions: I. After amputating a limb or making sections of nerves, pathological changes take place in the central portion of the nerves. The intensity of the changes depend upon the age of the animal and the time it is allowed to live after the operation. II. The anatomical changes resemble the Wallerian degeneration, which is surprising because the nerves are still in connection with their trophic centres. The degeneration in the peripheral ends of nerves begins much earlier than in the

central ends. III. The cause of the degeneration must probably be looked for in the severance of connection between the centre and the periphery. We can easily imagine that stimulation of sensory nerves produces biological changes, probably of a chemical nature, in the spinal ganglionic cells which have a trophic influence upon the centres of the motor nerves. IV. When a limb is amputated or a nerve severed, this normal stimulus of the sensory nerve becomes changed in quality and quantity and is no longer able to produce the proper changes in the ganglia. Thus a slow but constantly progressing change takes place in the efferent nerves. V. The nerve endings of sensory nerves contain no trophic centres, hence they, too, degenerate when they are cut off from the spinal cord, although they show more resistance than the motor nerve endings. VI. The order in which the different sensory and motor nerves degenerate is not easy to determine, although it probably depends upon the resistance of the individual nerve fibers. VII. The fibers which connect the spinal ganglia with the cord degenerate for the same reasons as do the central ends of the cut nerves. This explains the atrophy of the sensory portions of the cord. The difference in the character of pathological changes is probably due to the difference in trophic relations, possibly to the influence of the spinal ganglia themselves. VIII. The fact that the cells of the spinal ganglia remain unchanged proves that the trophic centres can maintain their own vitality even though the fibers which run from them are totally degenerated. IX. The pathological changes in the cord are present in the motor as well as the sensory centres, which proves that the motor cells have less power of resistance than the spinal ganglia. X. From the fact that bundles of fibers in the posterior columns of the cord having entirely different functions degenerate, we may conclude that not only the fibers connected with the bodies of Meissner, but other sensory fibers of the central end of the divided nerves degenerate. (*Neurologisches Centralblatt*, Nos. 15, 16 and 18, 1892.)

JOS. KAHN.

MULTIPLE TENDON AND NERVE SUTURE.—Dr. Lilenthal reports the case of a boy, 4 years old, who had accidentally divided all the four tendons, also ulnar and median nerves at wrist. Twenty-four hours after accident he operated upon tendons uniting them by silk sutures. Median nerve sutured

with two lateral silk stitches. Ulnar nerve so small that only one suture could be passed and that directly through nerve trunk. Wound suppurated, but the nerve sutures all held. Later observations showed no sensation over median and ulnar distributions, wasting of tissues of hand, and there were thenar and hypothenar depressions instead of eminences. Hand cold, bluish and clammy. Faradization and massage employed. Sensation and power of location slowly returned and when last seen function was nearly perfect. (*New York Med. Journal*, Nov. 5.)

B. M. CAPLES.

RESECTION OF BRANCHES OF THE FIFTH NERVE.—Krause exhibited, at the German Surgical Congress, a woman in whom he had resected the second branch of the fifth nerve within the cranial cavity. The peripheral portions of the nerve had been extirpated by Volkmann with temporary relief of a neuralgia. A relapse soon occurring, Krause resected it in the speno-maxillary fossa, just in front of the foramen rotundum, with relief from pain for some time. A second return of the pain and the importunities of the patient induced Krause to operate again. An incision was begun just in front of the tragus, curving backward and then forward and downward to the zygoma. Krause compares the shape of the flap to the outline of the uterus. The incision was carried down to the bone at once. The base of the flap measured 3.25 cm., its height 6.5 cm., its greatest breadth 5.25 cm. This form of incision leaves the temporal muscle almost intact, the nutrition of the bone is preserved, and the bone at the base is so thin that it is easily reflected. The bone was then divided in the line of the incision and pried back, the part corresponding to the base being broken, and the entire mass turned down upon the cheek. The opening must be very ample in order to allow the brain to be pushed aside. The dura was then carefully lifted from the base of the skull by dull spatulæ. The first point reached in this manner is the foramen spinosum, and a branch of the middle meningeal artery. The separation must be carefully carried on until the foramen rotundum and with it the nerve, comes into view. If it is necessary to seek the ganglion or the third branch the meningeal artery must be doubly ligated and cut, although the third branch is easier to reach in this manner than the second. Hemorrhage is very diffuse and troublesome. As

soon as the nerve was exposed the author tamponed the wound with iodoform gauze and applied a dressing. Five days later this was removed, the brain again pushed aside, the nerve seized with a sharp hook and about 0.5 cm. excised. This was bulbous and redder than usual. A gauze drain was inserted through a hole in the bone and the flap firmly sutured in place. This was done in February, 1892. At the date of report (June 10) no relapse had occurred. Union was firm and complete. Krause allows only two indications for this operation. 1. All other methods, both medical and surgical, must have proven futile. 2. The symptoms must be severe enough to justify this serious proceeding. In resection of the third division of the facial nerve, Madeling uses an incision running from the angle of the mouth to a point 2 cm. in front of the angle of the jaw. At this point the bone is divided. The nerve can be easily extracted from the canal. The entire operation can be done in 20 minutes. Gussenbauer, in order to reach the nerve at the base of the skull, makes a temporary resection of the entire zygomatic arch.—(*Deut. Med. Wochensch.*, No. 33, 1892.)

G. J. KAUMHEIMER.

DIVISION OF SUPERIOR MAXILLARY NERVE FOR RELIEF OF NEURALGIA.—Dr. Chicken thinks the following important in division of nerve: 1. A well-exposed situation for incision. 2. Non-implication of important structures or organs, such as orbit or eyeball. 3. Good anatomical landmarks. 4. Avoidance of bleeding or oozing. 5. Free access to nerve trunk. 6. Practicability of removal close to foramen rotundum. 7. The least possible disfigurement or loss of function afterward, then limit choice of seat of operation either to cheek or zygomatic fossa. An operation through the latter fulfills all the conditions. A vertical incision is made over the base of zygomatic process of malar bone about two inches long. Another, parallel to this, over the zygoma just in front of temporo-maxillary articulation. These are joined about an inch above the zygoma by a horizontal incision and the flap reflected downward, temporal fascia divided along border of zygoma, and bone sawed through as close as possible to frontal process of malar anteriorly, and temporo-maxillary articulation posteriorly. This fragment is turned down with the attached masseter. A director passed under temporal muscle fibers divided

close to coronoid process, belly of muscle turned up with temporal fascia, dissect along posterior surface superior-maxillary until prominent spine of corner of pterygoid ridge is distinctly felt. Internal to this the superior maxillary nerve, running from foramen rotundum to infra-orbital foramen, is easily caught on hook; divide close to foramen rotundum, make traction and divide close to infra-orbital foramen. Replace parts, insert drainage tube, wire zygoma at each end with silver; replace flap of skin. (*Lancet*, Oct. 29.)

B. M. CAPLES.

SURGICAL TREATMENT OF TRIGEMINAL NEURALGIA.—At a meeting of N. Y. Neurological Society the above subject was discussed, which will undoubtedly stimulate physicians to resort to operative treatment more frequently than at present. The number of cases referred to in the discussion was fifteen, in nine of which a thorough exsection of the nerve had resulted in radical cure. In six the operation had failed to produce relief. A successful issue in sixty per cent. of cases of trigeminal neuralgia is certainly a remarkable showing as compared with older statistics. (*N. Y. Med. Jour.*, Oct. 8.)

B. M. CAPLES.

THE TECHNIQUE OF OPERATIONS FOR SPINA BIFIDA AND ENCEPHALOCELE.—Dr. Carl Bayer, of Prague, gives the results of a rather extensive experience in *Prag. Med. Wochensch.* (Nos. 28, 29, 30, 1892.) I. *Spina Bifida*. In regard to this deformity Bayer believes that all cases should be submitted to operation. The skin should be incised at the base, leaving either a cuff or flaps of sufficient size to cover the hiatus in the bones. The dissection should be carried down, layer by layer, to the meningeal sac. This should be opened and all nervous matter dissected from its inner surface and replaced in the vertebral canal. If it should prove to be impossible to dissect off the nervous layer, the meninges adhering to it should be resected and replaced with the remnants of the cord. The greatest care must be given to accurate suturing. After the meninges are sutured he extends the wound upward and downward and raises the skin all around. A semilunar incision is then made on each side of the spinal defect, about 2 to 3 cm. from the median line through the spinal muscles, of such length that the separated portions, when turned on their long axes,

meet in the median line. There they are sutured, giving a firm covering over the spinal fontanelle. The skin is then closed over all. He has operated in 13 cases with only 2 deaths immediately following the operation and attributable to it. One case died of an intercurrent affection and four others of diverse causes at intervals of from 6 weeks to 2 years after operation. Six cases are reported in fair health from 6 months to 4 years after operation. B.'s conclusions are: 1. Operation is imperatively indicated in all cases of sacral and lumbo-sacral spina bifida which are born with a ruptured sac, in which the sac ruptures inter-partum, or in which the nervous matter is exposed, and which show neither paralyses nor other serious deformities (clubfoot excepted). In these cases all nervous contents of the sac must be carefully preserved. 2. The operation should also be done in these cases even if they present paralyses, as soon as the child is strong and the exposed nervous structures are in danger of infection. The usual orthopædic measures must be employed for the paralyses. In these cases all the nervous structures are, if possible, to be dissected off and preserved; parts strongly adherent, situated below the sacral plexus, or visibly degenerated, may be removed if the operation is simplified thereby. 3. In cases where the sac is covered by normal skin the operation may be postponed to a later period. But if the child be otherwise healthy it should not be postponed too long, in order to obviate the evil result of the unavoidable traumatic insults to which the tumor is exposed. If the sac be small, it will suffice to unite muscle and skin over the evacuated meningeal sac. In larger tumors a resection of the meninges can hardly be avoided. 4. Enlarged cranial fontanelles are probably present in all cases but furnish no positive contra-indication to operation. In pronounced hydrocephalus the operation may succeed, but the hydrocephalus may contribute to a fatal result after recovery. 5. Having but small experience with spina bifida in other sections of the spine, the author is not prepared to give an opinion in regard to it. II. *Encephalocele*. In this deformity the same rule in regard to incision and suture of sac and skin holds good. Ligation en masse or after transfixion should not be done. Asepsis and suturing should be carried out with extreme care. Bayer has operated on four cases of occipital encephalocele. Case 1 was living 2 years after but was somewhat hydrocephalic. Case 3 was alive and healthy

1 year after operation. In case 2 the sac was lined with the dilated cerebellum. Death in a week. Case 4, with perforated sac, died of meningitis 2 days after operation. In conclusion, B. relates a case which presented a tumor as large as apple over the anterior fontanelle of a child, 16 weeks old. After puncture had demonstrated the presence of a clear watery fluid Bayer proceeded to operate, believing it to be a meningocele in spite of the unusual location. It was not connected with the cranial cavity, but proved to be a dermoid cyst containing hair, a layer of sebaceous matter, and a liquid strongly resembling the cerebro-spinal fluid, chemically and physically. Hence the error after aspiration.

G. J. KAUMHEIMER.

A NEW OSTEOPLASTIC OPERATION FOR SPINA BIFIDA.—Prof. Boroff (*Ctbl. f. Chir.*, No. 22) reports a case of sacral meningo-myelocoele in which, after excision of the sac, the bony defect was closed by a piece of bone chiselled from the right iliac crest. At its inner end it was attached to the erector spinæ which furnished adequate circulation. The external surface was turned to the spinal canal, the denuded surface outward. In case of a defect higher up a piece of a rib might be used to close the gap. (*Wien. Med. Presse*, No. 30, 1892.)

G. J. KAUMHEIMER.

RUPTURE OF MIDDLE MENINGEAL ARTERY—SUCCESSFUL HÆMOSTASIS.—The patient was struck by a brick falling on his head from the fourth story of a building. On admission he presented the following symptoms: irregular respiration, unconsciousness, convulsions, a tense pulse at fifty-two per minute, and extreme dilatation of the right pupil. A wound was seen on the right parietal lobe extending to the bone, which was not fissured. The wound was extended toward the ear where a fissure was found. On removal of part of the skull a mass of blood was found between the bone and dura. Active hemorrhage was going on. The opening was extended to within a finger's breadth of the zygomatic process where a trephine was applied and the bleeding vessels found. As ligature was impossible the bleeding ends were caught with Pean forceps, which were allowed to remain. The coagula were cleared out. This was followed by return of consciousness and contraction of

right pupil. The forceps were removed after two days. An attempt to implant a celluloid plate failed. The patient has recovered, but complains of headache at the point of operation and vertigo. (*Berlin. Klin. Wochenschr.*, No. 34, 1892.)

G. J. KAUMHEIMER.

SPASTIC HEMIPLEGIA AND EPILEPSY—OPERATION.—The patient, a girl 15 years old, suffered from left infantile spastic hemiplegia and hemiathetosis. Since the age of 4 months she was subject to epileptic convulsions. The contractures and other deformities were improved by operation. As the epileptic attacks were cortical in type Sonnenburg decided to operate. A temporary craniectomy was made over the region of the right central sulcus. A large cyst with clear contents was removed. Recovery was prompt. The contractures became decidedly less; the epilepsy, however, was as bad as ever. Fifteen months later the same piece of bone was again resected and the old cicatrix excised. The bone was replaced, but not exactly, in order to obviate adhesions or pressure. It united readily. A moderate improvement in the epilepsy has since taken place. (*Berlin Klin. Wochenschr.*, No. 34, 1892.)

G. J. KAUMHEIMER.

TREPHINE IN EPILEPSY.—Drs. Maunowry and Camuset report (*Arch de Neur*, July, 1892) a case of longstanding traumatic epilepsy in which trephining in the depressed fracture was without result. The results were carefully tested and the element of error due to the influences of acute disorders eliminated.

J. G. KIERNAN.

CORTICAL EPILEPSY—OPERATION.—Dr. Shaw, of St. Louis, describes the following case in the *Amer. Jour. of Med. Sciences* for December: Woman, aged thirty-one; multipara. Seemed healthy up to time of seizure which occurred without premonition. While at work had a convulsion; speedily became unconscious and remained so for some time. During six months following had similar attacks about every eight weeks; afterward they became more frequent, notwithstanding treatment, until about a year after first attack, when they occurred every three or four days. Bro-

mides materially lessened number of seizures with loss of consciousness but mild attacks of Jacksonian epilepsy continued to recur. During first months of disease seizures were preceded by sensation of either pricking or numbness, or both, beginning in right hand and gradually extending up the arm. Frequently this paræsthesia would continue one or two minutes before the arm would be convulsed. Sometimes the brachial spasm would terminate the seizure, but more frequently jerking of the arm would be followed by forced extension of the toes of right foot and simultaneous jerking of the leg. Occasionally the seizures described would terminate without loss of consciousness, but often the next symptom would be general convulsion with unconsciousness and conjugate deviation of head and eyes to right. During year preceding operation patient had considerable pain in right arm and there was right hemiplegia involving face, arm and leg. Paralysis was intensified for several hours after severe seizures. While sitting or walking patient inclined to left. Memory considerably impaired. Some evidence of pulmonary phthisis and general nutrition below normal. During three weeks preceding operation patient had ten convulsions with loss of consciousness and twenty of the Jacksonian type. Ophthalmoscopic examination showed very marked anæmia of left disc and one strangely dilated vein in right retina. Field in both eyes concentrically limited. The only diagnosis possible was *irritating and probably destroying lesion of the arm-centre in the left hemisphere*. Result of operation: absence of pain, paræsthesia or convulsion, mentality improved; facial deformity less apparent and locomotion easier, but there is absolute loss of motion in right arm, the motor centre of which was the objective point in opening the skull. That it was reached is abundantly attested by the resulting condition. Great difficulty was experienced in removing the button of bone because of a considerable thickening of skull, this being greatest at a point exactly opposite that at which the inner table had been cut through, and exactly over the arm-centre in the ascending frontal convolution. Trephine opening measured $1\frac{1}{2}$ by $2\frac{1}{4}$ inches. Veins over the fissure of Rolando were large and full, showing plainly through dura; cerebral pulsation quite perceptible. Dura was seen to be much darker than normal, cortex was pigmented, and the brain bulged into and filled the trephine opening in a pe-

culiar manner owing to its softened condition. The softened area shaded off so gradually into tissue of normal appearance that further surgical interference was deemed inadvisable. A quantity of sterilized water was made to flow on the softened part and it soon became lighter in color and more homogeneous in appearance. Wound healed by first intention. Dr. Shaw concludes as follows: "According to the generally accepted teachings as to the location of the cortical area in which are perceived sensations and pain, the pain and paræsthesia experienced in the paralyzed arm in this case should have been taken as an indication of the involvement of the cortex between the ascending parietal convolution and angular gyrus; but the fact that the operation on the brain, which, as demonstrated by the resulting total paralysis of the arm, was made on the arm-centre, relieving at once and permanently the pain and paræsthesia without in the least impairing sensation, would tend to show that sensory centres exist in the recognized motor area as well as in the generally conceded sensory region of the brain. The conjugate deviation of the head and eyes in this case toward the paralyzed side is in keeping with the fact that in cerebral lesions high up, with paralysis on the opposite side from the lesion, if associated with convulsions, deviation will be toward the convulsed members." As there has been no return of symptoms seven months after operation, and the arm-centre has not manifested any tendency to resume its function, the doctor concludes that there are reasonable grounds for expecting permanent arrest of the epilepsy.

SHOCK CONTRA SHOCK.—Under this title Prof. M. Benedikt describes a very peculiar case. The patient, now sixteen years old, dreamt, six years ago, that a dog bit her in the left leg. This was followed by spasms which began in the left index finger, then extended upward and were succeeded by movements of rotation. A fit of weeping closed the picture. Since the onset of menstruation the fits had occurred almost daily. The last joint of the left index finger was spontaneously painful although anæsthetic. The left wrist was also painful. She also had monocular diplopia in the left eye, rachialgia, tenderness of the nerves and inferior cervical ganglion on the left side, constant choreic movements in the left arm, and ovarism. Pruritus vaginæ and petit mal were occasional complications. She

was often able to suppress the spasms by rubbing the anæsthetic finger. Benedikt classifies this as a mixture of hysteria and psychical shock-neurosis. The case is of interest as showing how profoundly the unprepared brain can be impressed by powerful emotions during natural or hypnotic sleep. Benedikt did not believe that there was any organic lesion of the cortex and so rejected a craniectomy. After all possible means, including magnets, hypnotism and suggestion had been tried, Prof. Benedikt concluded to try the result of a second peripheral shock. With this object in view he stretched the radial and median nerves in the arm. During the operation it was found that traction on the peripheral portions of these nerves had no effect. Traction on their central portions promptly caused spasm in the muscles supplied by them. Severe respiratory spasm occurred in the first twenty-four hours. After that all symptoms vanished with the exception of the anæsthesia of the last joint of the left index finger. Benedikt has seen only three cases of monocular diplopia. He attributes it to spasm or paralysis of the ciliary muscle, producing an unequal curvature of the lens. All the patients were hysterical. (*Wien. Med. Presse*, No. 24, 1892.)

G. J. KAUMHEIMER.

PROPHYLAXIS OF SURGICAL SHOCK.—Dr. J. H. Packard, of Philadelphia, writes upon this subject in *The Medical Standard* for December. As rapidity of progress is now considered needless, perhaps we have not altogether done away with shock from surgical operations in spite of the introduction of anæsthetics. The patient, being unconscious, makes no complaint of being chilled from exposure, but the results are none the less disastrous. When an operation can be forseen, the best safeguard against shock is the administration of a quarter of a grain of morphine hypodermically half an hour before the time. Stimulants in moderation may also be given. Only liquid food should be allowed on the day of operation and but a small quantity of that. The temperament should be considered, as the feeble and timid need more decided and vigorous stimulation physically, and encouragement mentally, than others. Administration of the anæsthetic should be intrusted to experienced persons, and only enough ether given to maintain a sufficient degree of unconsciousness. Flushing of the wound should be done with hot water only and a

sterilized mackintosh used to prevent wetting of clothing or skin. In cases of proposed operation after shock, the effect of inhalation of ether affords a tolerably fair test of the propriety of operation.

TRAUMATIC INSANITY CURED BY OPERATION.—Dr. Stetter (*Ctbl. f. Chir.*, No. 20) reports the case of a man, aged 28, who had sustained a fracture of the skull eleven years before. A slight depression occupied the site of the injury. He became morose, disinclined to work and irritable. In February, 1885, he fell on the back of the head. This was followed by weeping, delusions, melancholic depression alternating with fits of laughter and of anger. Becoming steadily worse, Stetter concluded, in 1887, to operate. The depressed bone was situated at the posterior inferior angle of the right parietal bone, five cm. behind and at the level of the meatus. A flap, including the bone, was raised, being 4 cm. long and 2.5 cm. wide. The bone was thickened and showed an exostosis $\frac{1}{2}$ cm. thick at the point of greatest depression. This was removed. The dura, which was pale, showed a depression as large as a pea. No cyst was found. The bone was replaced and united promptly. Six months later the patient was completely well. The resumption of normal cerebral function required three and one-half months. The time which has elapsed between the traumatism and the onset of mental symptoms furnishes no contra-indication against trephining, although the time of recovery varies, of course, with the extent of organic alteration at the site of injury. (*Wien. Med. Presse*, No. 25, 1892.)

G. J. KAUMHEIMER.

CASE OF TRAUMATIC PARALYSIS AGITANS.—Service of H. M. Lyman, M. D., Chicago. Male, aged 37; grocer, but formerly a yardmaster. Heredity good, also previous history. Has always been temperate in every respect. Five years ago, while on a train, was struck upon the back of head by an overhanging waterspout. Was temporarily insensible but worked as usual the next day. No recollection of perverted health or abnormal sensations for three months following, but about that time noticed progressive weakness in right hand and arm, later of the whole right side, and subsequently, both sides. After two years tremor was noticed, confined to right hand and fore-arm. Special senses

normal, appetite fair and ordinary functions of internal organs fairly well performed. Characteristic rigidity of spine, expressionless countenance, partial flexion of legs, arms, fore-arms, fingers and spine. Retropulsion present but no aberrations of sensations. Has insomnia caused by numbness which occurs after lying in one position for a time. General muscular weakness. For a period of two years was subject to regular attacks of cephalalgia; latterly these have disappeared. Patient has taken thorough courses of treatment at Hot Springs and elsewhere which failed to palliate, or even relieve his symptoms. *Diagnosis*—Paralysis agitans arising from a sudden and forcible impression upon the cerebro-spinal axis at time of accident before mentioned. *Prognosis*—Unfavorable to cure or permanent betterment. *Treatment*—Pil. hyoscyamine crys., gr. 1-200. One twice daily. *Progress*—Treatment with hyoscyamine alone was commenced March 31; following evening began to note improvement. Two days later, improvement more marked. Two days after this, patient walked seven blocks—something he had been unable to do before for more than a year. Facial stolidity had partially disappeared and there was improvement in attitude. Patient was positive regarding his betterment. A week later returned to his home and subsequent progress not known. (*The Chicago Clinical Review*, October.)

LARYNGEAL SYMPTOMS IN TRAUMATIC NEUROSIS.—Dr. Benno Holtz has reported two cases, the only ones on record. The first was a man, aged 25, who presented other symptoms of traumatic neurosis. He was completely aphonic and spoke in whispers. The vocal cords seemed covered with a dirty layer. During respiration the vocal cords were in their normal position but strongly curved outward, and showed spasmodic movements during which the arytenoid cartilages approached each other. During phonation the processes and cartilages approached each other, the cords remaining about 2 mm. apart at their middle. Application of the constant current caused no change. At a subsequent examination, 2 days later, the cords were 4 mm. apart. Case 2 was that of a man, aged 47, who complained of hoarseness. Examination showed the glottis ligamentosa of an elliptical, and the glottis cartilagemosa of a triangular form. The vocal cords were apposed, even during the most quiet respiration. At each fourth or

fifth respiration the cords separated to somewhat more than the cadaveric position. This latter movement was variable in extent and was frequently accompanied by outward rotation of one arytenoid cartilage. The patient had, besides, motor and sensory paresis of the left side of body and face and other symptoms of traumatic neurosis. Speech was heavy and dragging. The author refers the paralysis of motion to a disseminated change in the internal capsule, but is unable to localize the lesion producing the laryngeal lesion. (*Berlin. Klin. Wochensch.*, No. 33, 1892.)

G. J. KAUMHEIMER.

A TRAUMATIC NEUROSIS?—C. M., aged seventeen and one-half, fell and injured the ring-finger of the right hand at the same time sustaining a severe fright. His work, however, was not interrupted. The next day he noticed that differences of temperature were not felt on the right side. Five weeks later, when first seen, complete analgesia and anæsthesia were found on the right side over an area bounded by the median line in front and behind, and extending from the vertex to a line drawn from the ensiform cartilage to the seventh dorsal vertebra. Tactile and thermic anæsthesia and analgesia were absolute in this area. Faradic currents which produced tetanic contractions of the muscles, were not felt. The motor functions of the arm were normal, as were the muscular sense and the electric irritability of both muscle and nerves. Patient was cheerful and protested that his trouble was too trivial to need treatment. As disease of the peripheral nerves as well as a disease of the cord, such as syringomyelia or hæmatomyelia, could be excluded, the author attributes the symptoms to a functional disturbance of a very limited part of the psycho-sensory sphere, a traumatic neurosis in the literal meaning of the phrase. Treatment by means of the faradic brush was followed by recovery in 6 weeks. (N. Coester, *Berlin. Klin. Wochensch.*, No. 31, 1892.)

G. J. KAUMHEIMER.

FATAL INHIBITION PHENOMENA OF UTERINE INCEPTION.—It is well known (*Prog. Méd.*, Oct. 15, 1892) that a slight sudden blow on the abdomen of a frog will produce a state of seeming death in that animal. This inhibition phenomenon is not, as Brown-Séquard has shown, limited to the

splanchnic viscera; the larynx and uterus may present it. Obstetricians and gynæcologists have had the misfortune to recognize it during curettage, during an injection, or even during simple exploration of the uterine cavity. Death in this case, according to Bonvalot (*These de Paris*, 1892), is an inhibition phenomenon due to rapid arrest of the heart and respiration. This is sufficiently well established for experts to take it into account in deaths during delivery or gynæcological operations.

J. G. KIERNAN.

PSYCHOLOGICAL.

PATHOLOGY AND SYMPTOMATOLOGY.

A STUDY OF THE SENSORY AND SENSORY-MOTOR DISTURBANCES ASSOCIATED WITH INSANITY, FROM A BIOLOGICAL AND PHYSIOLOGICAL STANDPOINT.—Dr. H. A. Tomlinson considers that the theory of evolution furnishes a working hypothesis by means of which many facts of insanity are explained. The asylum physician sees more clearly the influence of environment and association independently of morbid conditions, than does the physician in general neurological practice. The mind is not an entity, therefore its disturbances are due to the same causes which produce disturbances in the general nervous system. The primary difference between sensory and motor disturbances occurring in insanity and general nervous disease, is the marked tendency to variation in the former, even where the sensory manifestations and disturbance of motility are as apparently persistent as in gross lesions of the brain and cord. The pathological history of insanity is vague, and from an anatomical standpoint furnishes little information. In the majority of cases of insanity furnishing material for post-mortem study, the general degenerative changes have obscured any definite pre-existing lesion. Even where lesions are found, the history of the case will often show that they have been engrafted upon pre-existing insanity. In cases where insanity has followed gross lesion of the brain the perversions are in no wise different from those where no such lesion exists. A study of a single nerve cell with reference to progress of degeneration, will enable us to obtain a clearer idea of general conditions present than an anatom-

ical study of the brain substance. If we assume that the nervous mechanism in the foetus is endowed with a definite potentiality, then, in the progress of development, the environment and experiences of the individual governed by the laws of organic development would affect this potentiality, relatively and generally. In a normal nervous system this potentiality would be equal in all its parts, but if, as is usually the case, the individual has some imperfection of development, some parts of the mechanism will be in a condition to succumb to a smaller strain than others. The degree of disturbance will depend upon the amount of imperfection, and the character, by the environment of the individual. All of the sensory and motor symptoms produced permanently by pressure or gross lesion of brain or cord, are produced temporarily by cell irritation or exhaustion occurring during a course of chronic meningitis, sclerosis or atrophy. The doctor describes three cases illustrating his theory, the first of syphilitic brain disease, the second a case of general paralysis—these two showing motor degeneration—and the third, one of intellectual degeneration. If the doctor's hypothesis be tenable the deduction follows, that the cerebral cortex is the originator of all the activities of the organism, and that those manifested automatically by the spinal centres, which we find in the reflex mechanism, are the result of the division of labor caused by evolution, and represent the development from the simple and lowly organized to the complex. These activities become more uniform and persistent until, without the intervention of active consciousness, they respond definitely to external impressions. It follows, then, that any breach in the integrity of the cortical function would produce disturbance of the uniformity and definiteness of its activities, while the reflex mechanism, subject to the same source of disturbance, would react irregularly, giving rise to centrifugally excited activities without correspondence to the external stimuli. The sensory and motor disturbances associated with insanity may be arranged as follows: *Sensory*. Disturbance of general sensation including anæsthesia, analgesia, paræsthesia and disturbed muscular sense; disturbances of special senses, such as illusions and visceral hallucinations. *Motor*. Tremor, local or general, automatic associated movements; paresis and paralysis involving general muscular function; vaso-motor disturbance, spasm, and convulsion. Analysis of these different forms of disturbed functional activity

seems to lead to the conclusion that even in their most complex manifestations they are simply the outcome of increased or decreased irritability in the functional nerve cell, their complexity depending upon the number of functional groups associated, while they are manifested in their simplest form by the general involvement of the cerebro-spinal mass. The forms of insanity with which the various sensory and motor disturbances are associated, further confirm the generalization as stated. In exaltation all forms of sensory and motor activity are present in excess. In acute mania the first manifestations are self-absorption and irritability, for external impressions are not fully recognized and the resulting discharges of energy are imperfectly coordinated. Dr. Tomlinson concludes his article as follows: "I will venture the opinion that it is in the direction which the theory of evolution leads that we must look for future progress in the study of insanity and its associated disturbances, especially when its prevention and cure are the objects sought, and we must look to biology and physiology rather than to pathology, for our guide in these studies." (*Jour. of Nervous and Mental Diseases*, Oct., 1892.)

"SPELLS". R. M. Phelps, M. D., says that in ordinary physical ailments "spells" are not seen, and our philosophy is inadequate to give good reason for them in insanity. The periodicity referred to is entirely outside of any irritation from surroundings or secondary disease. These periodical changes in behavior are so variable as regards times, seasons or even regularity, as to make clear definition almost impossible, and the author objects to placing them in a distinct class in any classification. Spitzka ranks "periodical insanity", as he calls it, with paranoia and imbecility, and assigns it a degenerative tendency. Clouston finds the periodic tendency to be an *almost universal* characteristic of mental diseases, and finds it more marked when the disease is hereditary, and also more common in pubescent cases. Tuke says that "periodicity" is more marked in mental depression than in exaltation. Folsom, Krafft-Ebing and Bevan Lewis give heredity as a strong cause. There is doubtfully shown a greater tendency towards periodicity among the female population: this seems to be true after setting aside the cases of menstrual origin. From Dr. Phelps' experience he furnishes the following classification: "1st. The class of cases that have menstruation as exciting cause

seems to be the most obtrusive and prominent. 2nd. The class of cases with regular exacerbations is the largest, but a large proportion of the cases are ill-defined. 3rd. The class of 'recurrent' cases which have exhibited a cyclical tendency is rather small. 4th. 'Circular insanity' is only the most perfect form of the same cyclical tendency and is very rare if confined to typical cases. 5th. In all the four classes there is reproduced, almost invariably, the same character of behavior at each cycle, while in contra-distinction no two separate cases at all closely resemble each other. 6th. Almost all the cases begin in the early period of life. This is as significant an element as any to be mentioned. It fits into the statement that periodicity and essentially degenerative tendencies go with pubescent cases. 7th. The cycles are so irregular as to time as to strongly tend to preclude their coincidence with any healthy physiological cycles. 8th. Although these cycles are almost *sure to return* one cannot *predict the exact time* in any case I have met; I always have to say, 'about such time'. Subordinate to this is the fact that cases can seemingly skip the turn of one cycle, or at least have symptoms so mild as to be hardly noticed." These observations are from 3,000 cases. In closing, Dr. Phelps notes the suggestive studies of Laycock and Smith. The former laid down the statement that there is a "general law of periodicity which regulates all of the vital movements of all animals". He also laid down the fundamental unit of change to seven days of twelve hours each and its multiples. A consideration of the critical days in fever and other diseases seem to form most of his data. Smith examines the changes actually undergone by himself and others. He found a distinct daily cycle, an obscure weekly cycle, and a distinct annual cycle. Dr. Phelps' conclusion is a somewhat negative one, viz.: that the variations are so irregular that he would form no theory to account for them, but would simply note their most frequent occurrence in cases which would be styled "pubescent," that is, "those cases having their origin in the developmental period, having strong hereditary taint and, essentially, chronic degenerative character." (*Hospt. Bulletin of the Second Minn. Hospt. for Insane*, November.)

PRIMARY CONFUSIONAL INSANITY.—Dr. Chaslin concludes (*Ann. Medico-Psych.*, Sept.-Oct., 1892) that there exists a type of acute mental disease which is neither mania nor melan-

cholia, which should be attributed to rapid and brusque exhaustion of the central nervous system (very frequently, according to the most recent authors, consecutive to infection or auto-intoxication) and which should be separated from what is designated "degeneracy". It is a psychosis intermediate between the "pure" psychoses (of Spitzka) and the insanities with accentuated, profound lesions. It assumes often the type of a true somatic disease with denutrition, fever, etc., that accompany it. From a psychical point of view it is essentially characterized by confusion of ideas as a sequence of enfeeblement of inco-ordination of ideas, perception and personal apperception. It may, or may not be hallucinatory. It may be accompanied with motor agitation, depression or stupor. The emotional state, often indifferent, may present brusque variations. The psychosis has the greatest possible analogy with psychic symptoms due to chronic intoxications. The psychosis, in Dr. Chaslin's opinion, merits the title of mental confusion, under which it has been described in France, adding the term, primitive, to distinguish it from the secondary states in which confusion exists. It is obvious that Dr. Chaslin has included under this term not only the "Verwirrheit" of the German and the primary confusional insanity of Spitzka, but also mixed cases where an emotional tinge (absent in the pure psychosis) exists.

J. G. KIERNAN.

ABULIA WITH INTERROGATIONS AND MOVEMENT DISORDER.—Drs. T. Raymond and T. Amaud (*Ann. Medico-Psych.*, Sept.-Oct., 1892) point out that under this title may be included certain psychical symptoms which cannot be included under "folie du doute avec delire du toucher". The general state is constituted by emotivity, psychomotor hesitation and neurasthenia. The patients, as a rule, betray lack of logical balance and default in neuro-functional stability. This primitive and general trouble which involves the motor elements common to the intelligence and the will, determines in each of the mental operations symptoms of the same order; intellectual hesitation producing doubt and necessity for internal repetition and strange affirmations—abulia with all its consequences—hesitation, and further difficulty of muscular movements and acts which cannot be executed with normal procedures but require accessory assistance. Beneath the general state

which is pretty nearly fixed and constant, appear exceedingly variable symptoms which are but exaggerations of psychomotor instability obsessions, fixed ideas and bizarre acts (hand washing, fear of contact, repetitions, etc.). Such symptoms vary with, and in the patient, in the faculty of perception; in its mode, which has been denominated static and passive, the intelligence is not sensibly altered. The patient preserves consciousness of his state, which implies a rectitude of judgment. Intelligence is altered in its power of co-ordination and of fixation of ideas; that is, in its active mode, especially in what is peculiar to its active mode, voluntary attention. The will is incontestably the most affected and in its double action. As an impulsive it is so affected as to produce perpetual irresolution, hesitation and uncertainty of movement. As an inhibitory power the affection of the will is shown in imperative conceptions and impulses. The patients are not masters of certain of their ideas which are imposed on them in spite of themselves. Automatism replaces will. The patients become, according to Billod, "idiots of the will".

J. G. KIERNAN.

PSYCHIC STIGMATA OF DEGENERACY.—Dr. Catsaras, of Athens, Greece, concludes (*Ann. Medico-Psych.*, Nov.-Dec., 1892) that conscious imperative hallucinations should occupy a place among the psychic stigmata of degeneracy. These may occur under two aspects isolated or combined. Among the combined Dr. Catsaras has observed: A; visual auditory and verbal psychomotor (conscious uncontrollable dialogues with vision of absent person): B; verbal auditory and verbal psychomotor (as before but without vision): C; visual and auditory but non-verbal hallucinations (sights and sounds without enforced conversation). There is a category of episodiocal symptoms which deserve designation as conscious auto-suggestions in the waking state. These symptoms merit classification as psychic stigmata of mental degeneracy. These have the same basis as other psychic stigmata, default of equilibrium from which results conscious, but uncontrollable action of one or more cerebral centres. The prognosis of these is graver than that of imperative conceptions.

J. G. KIERNAN.

CRIMINAL MAN does not, according to Houzé and Warnotz, constitute (*Revue Intern't. de Biblio Méd.*, Oct. 10, 1892) a

peculiar species. The type designated by Lombroso "criminal man" is an hybrid product of several conditions, not a real type. These conditions are realized but in a minor proportion of criminals. Some criminals belong to the degenerate type but do not constitute a special variety.

J. G. KIERNAN.

MINOR PSYCHICAL DISTURBANCES IN WOMEN.—Dr. Campbell says that women under all conditions tending to upset the general health are very liable to psychical disturbances. Let any woman, no matter how sane, be housed and fed like the average woman of the "slums", and she will manifest at some time or other certain symptoms, they being, of course, prone to thrive best during pregnancy, when weakened by nursing, at climacteric or menstrual derangement. Cases displaying these symptoms come to the London hospitals by the thousands, and are interesting as marking the borderland between sanity and insanity. These observations were based on 200 cases, none of which went on to insanity. These cases merged imperceptibly into "melancholia without illusion" in which the patient usually felt quite well in the evening, the influence of surroundings being marked. Irritability generally present. Hyperæsthesia of all special senses, impressions on sensory nerves and organs provoking sensations which were actually and unpleasantly felt. Intolerance of noises. Emotional irritability. Fear and anger readily excited. He thinks it not strange that these two emotions, both primitive, should attain prominence in slight mental dissolution. Suicidal impulse common. Recent investigations on ptomaines, leucomaines and uric acid made it equally certain that it might also result from the operation of poisoned plasma—for on the substitution of normal plasma for abnormal the symptoms vanished as if by magic—at same time remembering that molecular structure of nervous tissue might be so affected by the prolonged action of the poison, though the condition of plasma might be rectified at once, that some time might elapse before the nervous tissue could recover itself. (*British Med. Jour.*, Aug. 20.)

B. M. CAPLES.

CRIMINAL IMPERATIVE CONCEPTIONS.—Dr. Magnan (*Progrès Méd.*, August 13, 1892) in a paper read before the Congress on Criminal Anthropology, states that in otherwise normal conditions the imperative conception is ordinarily transitory

and easily repressed. The intellect is not involved otherwise, and the superior centres do not lose their control over the psycho-motor centres. In consequence, the imperative conception does not become an imperative impulse. In morbid states the conception is tenacious and tyrannizing and accompanied with a moral pain which subjugates the will. For such states the conception leads to the impulse and the conscious subject is impelled to an act which he abhors. In some instances the discharge of a motor centre, as in onomatomania, is so abrupt that there is no time to resist the impulse. Often in criminal imperative conceptions the victim resists by himself; sometimes friendly counsel proves effectual. At other times a long struggle results in the triumph of the impulse.

J. G. KIERNAN.

HOMICIDAL IMPERATIVE CONCEPTIONS.—Ladame (*Ibid*) took Westphal's view of the imperative conception which occurred on an otherwise intact intelligence whose morbid value was fully recognized by the patient, but of which he could rid himself. The homicidal impulse may belong to the same category of the degenerate as the kleptomaniacal and dipsomaniacal types, and was often periodic or recurrent in character. It frequently remained theoretic and did not become an act. It might be episodiocal also and result in epidemic form after great crimes. Dr. Garnier, in discussing Ladame's paper, said that perusal of sensational descriptions of murder might in predisposed persons awaken these conceptions, "some one has committed a crime, I may also", and the fear of the possibility thus expressed awaken a tendency to the act.

J. G. KIERNAN.

CONSCIOUSNESS IN EPILEPSY.—Dr. Garnier (*Prog Méd.*, August 13, 1892) says that the states of uncertainty accompanying imperative conceptions while vertiginous and coincident with loss of equilibrium, are distinguished from epilepsy by the unconsciousness and amnesia of the latter. Benedikt, in replying to Garnier, claimed that certain epileptics may be conscious of the acts they commit, at least partially, so far as the onset and termination of the act is concerned. He had observed the case of an epileptic homicide who retained remembrance of the homicide in detail but ascribed it to another. It was a species of hallucinatory dream.

J. G. KIERNAN.

SYSTEMATIZED NEGATIVE DELUSIONS of progressive evolution, are, according to Dr. F. L. Arnaud (*Ann. Medico-Psych.*, Nov.-Dec., 1892), most frequent in females. They show themselves only after 55. In many cases they appear after one or more attacks of ordinary melancholia. In typical cases they develop only after a more or less prolonged period of agitated melancholia. The psychosis characterized by these symptoms may be regarded as a late psychosis arising on a basis of intermittent vesanias. It has a grave prognosis.

J. G. KIERNAN.

A NEW FORM OF VISUAL HALLUCINATION.—Pieraccini (*Rivista Sperimentale*, XVIII, II, Aug., 1892) describes the case of an insane man of the criminal type, in whom occurred visual hallucinations which could be made to disappear by closing either eye indifferently. The hallucination could not, therefore, be regarded as a unilateral one, and he endeavors to account for its peculiarities on the basis of an auto-suggestion, as the subject was an impressionable one. The closing of one eye produced a belief that he could not see without it and induced a sort of psychic blindness to the hallucinatory image. On another occasion, when the same patient was storming against a persecutor, whom he said was tormenting him from a hole in the ceiling, the attendant promised to go above and prevent further trouble, and on his pretending to do so the hallucination ceased entirely, to the great satisfaction of the patient.

H. M. BANNISTER.

COLLECTIVE SUGGESTED HALLUCINATIONS.—Dr. E. Laurent states (*Revue de l'Hypnotism*, August, 1892) that under the influence of a pre-occupying thought feeble minds may create hallucinations by auto-suggestion, and, if they be in contact with persons easily affected by suggestion, they may communicate to them their hallucinations. A superstitious peasant believed he heard behind him a noise which followed him home. Arrived there, he spoke of it to his wife. Later he heard it under his bed and it was also heard by her. Two narrow-minded, very religious girls, were sent into a field by their father in lieu of attending a procession in their village. In the middle of their work one of them had an hallucination of a splendid procession and showed

it to her sister. The two then called a friend who also saw it. The arrival of a sceptic caused the hallucination to vanish. It was described by all three in similar terms but with some variations. The number of priests in it varied.

J. G. KIERNAN.

HYSTERICAL MUTISM.—Apsithyry is a term applied to this condition by Solis-Cohen (*Annal des Mal. de l'Oreille, du Larynx, etc.*, July, 1892). The condition is essentially a central one as the larynx is normal. Careful examination will be required to eliminate simulation. Cure is as rapid as the onset of the disorder, and better results are obtainable from psychical influences than from therapeusis. The condition has a certain analogy to the laryngeal crises of tabes and the condition sometimes found in normal persons submitted to sudden moral shock. In these last cases the apsithyry is transitory.

J. G. KIERNAN.

HYSTERICAL AMNESIA, according to Charcot (*Arch. de Neur.* July, 1892), is characterized, not by a total destruction of elementary psychological phenomena, but by an impotence of centralizing power. There is always an egotistic personality which is incapable of attaching events. Conceptions are sometimes capriciously neglected, whence vague and continual amnesias result. Sometimes determinate images having defined characters are neglected, whence curiously localized amnesias result. The causes which determine these particular localizations of amnesia may be found in the anæsthesias which coincidently occur, or in variations of conscious sensibility.

J. G. KIERNAN.

PSYCHIC SYMPTOMS OF BASEDOW'S DISEASE.—Basedow's disease is often accompanied by psychic symptoms which are accounted by some authorities as symptoms of the disorder itself, and by others as merely superadded phenomena. Serieux and Raymond conclude (*Revue Intern't. de Biblio. Méd.*, September 10, 1892) after an extended study of the mental disturbances occurring in exophthalmatic goitre, that the psychic troubles of Basedow's disease are not an integral part of the disorder. They have no special characteristics and assume almost all psychical types. Some appertain to

the neurasthenic type, or to the hysteric, epileptic, hallucinatory, confusional, maniacal or melancholiac type. One group belongs to the degenerative type and has the usual psychic and somatic stigmata. The association of this with Basedow's disease is due to the hereditary taint underlying both. This taint may show itself in the explosion of a delirium during the progress of Basedow's disease, during its progress, or even after recovery from it. The moral shock producing Basedow's disease may be revealed in the delirious conceptions. Exophthalmic goitre may, in predisposed subjects, act like any other exciting cause. Basedow's disease is a bulbo-protuberantial disease due to exaggeration of physiological functions. Emotionalism underlies the disorder and results from disequilibrium of the vaso-motor centres, similar to that occurring in other cerebral or spinal spheres in the degenerate.

J. G. KIERNAN.

SYPHILITIC INSANITY.—Dr. Newth writes an article in which he states that the study of cerebral syphilis is one of interest and importance; of interest because of its many curious symptoms, and importance, for if diagnosed correctly in its early stages it is then fairly curable, or at least the progress of the disease may be checked for a considerable time by appropriate treatment. There is a very close resemblance between general paralysis of the insane and syphilitic insanity, and one is often mistaken for the other. Syphilis of brain and nervous system is very variable in its development and characteristics, the nervous system not corresponding with any special lesions of brain or spinal cord. A sudden and severe attack of nervous symptoms in a person previously apparently healthy, affords a strong presumption that these symptoms are due to syphilis. The erratic character of symptoms and their abrupt development are two of the most characteristic features in syphilitic insanity. Patient may show signs of syphilis as indented teeth, effusion of lymph and formation of vascular nodules in iris, perforation of palate, copper-colored eruption nodes on long bones, syphilitic ulcers on leg, signs of buboes, chancres, etc., irregular patches of baldness, linear scars running outward from corners of mouth, broad sunken nose, instability of character, fits of unreasonable passion, defective memory, errors in speaking or writing, that is, using wrong words to express meaning, omitting letters

or words in writing, and lack of faculty for business. One suffering from syphilitic insanity has a peculiar imbecile expression, his appearance is flabby, flaccid, vacant. Notices nothing attentively, slouching manner in walking, gait uncertain, stumbling or staggering with tendency to fall. Generally complains of vertigo or giddiness, may have slight apoplectic seizures, sometimes accompanied by hemiplegia, followed by epileptic or semi-epileptic state—these latter may be the first expression of the disease—partial or complete paralysis of extremities not uncommon. These paralyzes do not seem to coincide with any special cerebral lesion. May be facial paralysis on one side and oculomotor on the other. Aphasia may be coincident with left hemiplegia; may closely resemble hysteria. Locomotor ataxia not an uncommon result of syphilis, but is liable to remissions. There is loss of memory for recent events, lack of æsthetic feeling, and the ethical or moral sentiments are wanting in expression, syphilitic patients being often most obscene in their behavior and regardless of the decencies of life. Intellectual faculties dormant, innate or cognate, ideational faculties torpid. If there is furious mania it is the mania of impotence. The want of coincidence characterizes syphilitic disease of the brain. Delusional insanity may be due to syphilis; these patients are very suspicious, and acting upon these delusions become very dangerous. Anti-syphilitic remedies, if early and judiciously administered, do great good, such as mercury, iodides and arsenic. (*Lancet*, October 15.)

B. M. CAPLES.

KLEPTOMANIA AND PREGNANCY.—Dr. Lefebure, of Brussels, has observed (*Prog. Méd.*, Aug. 13, 1892) the case of a woman without known hereditary taint, who was kleptomaniacal with each pregnancy and at no other time.

J. G. KIERNAN.

PUERPERAL INSANITY IN THE FIRST, AND TEMPORARY GLYCOSURIA IN THE SECOND CONFINEMENT.—Max Flesch reports the following case: A woman with neurotic inheritance had a convulsion after labor, possibly due to excitement and worry, followed by melancholia which ended in recovery. Following her second confinement there were no symptoms directly traceable to the nervous system, but she

had a temporary glycosuria, which, under a properly regulated diet, disappeared in about eight days. The author considers this glycosuria a neurosis.—(*Berl. Klin. Wochensch.*, Oct. 24, 1892.)

JOS. KAHN.

ACUTE ALCOHOLIC INSANITY.—Knorr reports a series of cases of acute alcoholic insanity. The patients were all habitual drinkers who, shortly before the onset of the disease drank to great excess. The symptoms were those of an acute paranoia with primary hallucinations of hearing followed by delusions of persecution, without delusions of grandeur. The course of the disease was rapid, always ending in recovery, thus differing from ordinary paranoia in which the prognosis is unfavorable. Delirium tremens is a condition of exhaustion of the brain, while acute alcoholic paranoia is a psychosis occurring at the height of the alcoholic intoxication. In the former there are hallucinations of all the senses, more particularly that of sight, while in the latter there are simply hallucinations of hearing, otherwise the mind is clear. (*Allgemeine Zeitschrift für Psychiatrie*, Vol. 48, No. 6.)

JOS. KAHN.

MENTAL DISORDERS FROM EXOPHTHALMIC GOITRE.—Dr. Jacquin reports (*Revue Intern't. de Biblio. Méd.*, Oct. 25, 1892) the case of a 64-year-old woman whose father and sister were insane, who had had four attacks of melancholia, exophthalmic goitre appearing during the fourth attack. Dr. Jacquin, while admitting an hereditary influence in this case, points out that exophthalmic goitre may produce mental symptoms by the epileptiform attacks occasioned by it, as well as by the denutrition it provokes. In certain predisposed cases the relationship of the nervous phenomena can be followed from childhood until the onset of insanity. In others, insanity and the goitre occur together. Exophthalmic goitre can produce, both in predisposed and non-predisposed individuals, mental disorders having a peculiar type, as well as ordinary types of the psychoses. These last are, however, apt to be tinged by goitric mental symptoms.

J. G. KIERNAN.

VARIOLA AND INSANITY.—Deugler (*Rev. Méd. de l'Est.*, July 15, 1892) has observed a variola epidemic in the Marville (France) insane-hospital. Six insane patients were attacked,

one of whom died. Deugler finds that variola exerts but little, if any, influence on chronic psychoses. It has a temporarily beneficial influence on acute psychosis. Vaccination is less successful with the insane than the sane because of the lack of care of the former. Vaccination was without effect on the mental state.

J. G. KIERNAN.

CHOLERA AND THE PSYCHOSES.—Dr. Camuset states (*Ann. Medico-Psych.*, Nov.-Dec., 1892) that after the reaction from the alleged period of cholera a fugacious febrile delirium sometimes results. The choleraic attack sometimes checks hysterical symptoms of subjects in whom they have been present at the time of the onset of the cholera. The choleraic attack during its grave periods checks maniacal states whatever their nature or duration. After recovery, however, these states, as a rule, return. Choleraic attacks temporarily ameliorate melancholia, but such amelioration is not very frequent. Systematized delusions, in Dr. Camuset's experience, were not affected by cholera. The demented and idiots recognized the gravity of the disease with which they were attacked. Secondary confusional lunatics regained during the choleraic attack a surprising degree of mental lucidity.

J. G. KIERNAN.

HEPATIC INSUFFICIENCY AND THE PSYCHOSES.—Dr. Klippel has recently discussed (*Arch. Gén. de Médecine*, Aug., 1892) the rôle of the liver in the ætiology of the psychoses. A very general belief exists in the ætiological rôle of the auto-intoxications in the psychoses. Alienists have described a nephritic psychosis due to uræmia. Klippel claims that hepatic disorders should be taken into serious consideration, since, though these have been believed to exert but a doubtful influence on psychoses, the hepatic lesion assumes a decidedly obvious psychic importance. Not only is it capable of keeping up and exaggerating a psychosis, but it may be the cause thereof. In order that the action of the liver in the psychosis should be clearly analyzed it is necessary that an analysis be made of the functional state of this organ. Klippel has, therefore, not only examined the usual symptoms of hepatic disease (icterus, ascites, etc.) which may show themselves long ere the hepatic cell is exhausted, and are often wanting even though this cell be profoundly altered when the veins and hepatic ducts re-

main normal, but has recognized hepatic insufficiency by aid of physiological signs which are not affected by the elements of error just described, and which appear whenever the hepatic cells are affected. The evidence of experimental glycosuria, the presence of certain hepatic coloring matters in the blood, the decrease of urea, the increase of uric acid, the state of the fæces, and urobilinuria, enable this state of things to be recognized. This last sign, in particular, has been to Klippel of great value, and he has chosen it as giving in some respects an exact measure of the functional state of the hepatic cell. Without neglecting other investigation procedures which serve as central experiments, Klippel uses urobilinuric examination to determine the state of the liver. The spectroscopic results of urobilinuria are adapted both for qualitative and quantitative results. The characteristic ray will, to a pretty exact degree, measure by its intensity the amount, and Klippel has found by this ingenious procedure that urobilinuric variation corresponds to psychical variation, and that urobilinuria discharge coincides with modification of the mental state. In consequence, this symptom shows, from the hepatic pathogenic point of view, the influence of the liver upon the psychoses, and indicates, moreover, the necessity for treatment of hepatic insufficiency. Klippel is of opinion that urobilin indicates a lesion of the hepatic cell which may be either the product or the cause of a psychosis. He is of opinion that the action of alcohol upon the liver is a potent factor in producing the psychic symptoms of alcohol; in certain cases alcohol may act directly upon the brain but also indirectly through the effects produced by its influence upon the liver and kidneys. In some cases the hepatic disorder is a primary cause without which the psychosis would not exist. Klippel cites the following case of this nature which he denominates hepatic insanity. A 62-year-old man, who was of excellent hereditary antecedents so far as known, and never was an alcoholic, had no gastric embarrassment nor fever but presented hepatic insufficiency characterized by all the symptoms cited, and in particular by urobilinuria. This patient, after a maniacal explosion with grandiose delusions, became depressed and died in coma. At the acme of the depression there was decidedly decreased urobilinuria. On autopsy no well marked cerebral lesions were found. The majority of the other organs were almost equally healthy. There was, however, granular atrophic degeneracy of the liver

characterized by lobular anæmia, irregularity of the trabeculæ, and very pronounced atrophy of the cells, the greater number of which were transformed into granular bodies without nuclei. The term, acute delirium (*delire aigue*, delirium grave of Spitzka, typhomania) might be justifiably employed as symptom designation of this case, but there was notably absence of pyrexia. Alcoholism and parietic dementia could be rejected in the diagnosis. The first, because of the absence of alcoholic antecedents; the second, because of the characteristic lesions. The hepatic condition sufficed to explain the symptoms. Similar psychic phenomena have resulted in cases of hepatic disease of determinable ætiology, hence Klippel believes hepatic insanity should take its place in nosology with nephritic insanity.

J. G. KIERNAN.

URIC ACID IN CONDITIONS OF MENTAL DEPRESSION.—Marzocchi (*Rev. Sperimentale*, XVIII, August, 1892) publishes a series of observations made by him upon seven patients, as to the proportions of uric acid and urea in various stages of mental depression. The instigation to these observations came from the publication of Haig (*Brain*, 1891) and the earlier statements of Maudsley (*Phys. and Path. of the Mind*) as to the auto-intoxication from uric acid. Marzocchi's conclusions are stated as follows: (1). Absolute and relative increase of the uric acid in the blood occurs in certain forms of melancholia. (2). It is not probable that this increase is merely an effect of the morbid process, taking into consideration the psychic depressive action of uric acid. (3). While it is not justifiable to attribute to the uric acid the importance of a cause, it may be credited with producing an aggravation of the morbid condition.

H. M. BANNISTER.

TREATMENT OF THE INSANE BY THE SUBCUTANEOUS INJECTION OF INFUSION OF NERVOUS TISSUE.—Culere placed a portion of the grey matter of the brain of the sheep in double its weight of glycerine and allowed it to macerate for twenty-four hours. He added an equal quantity of boiled water and filtered. Four grains of the clear filtrate were injected subcutaneously in the loins every second day, without bad results in five hundred injections. The treatment was employed in fourteen cases and while the mental condi-

tion did not improve, there was a marked change for the better in the physical condition. The appetite increased and the patients gained in weight and strength. (*Wiener Med. Presse*, No. 41, 1892.)

JOS. KAHN.

PHTHISIS AMONG THE INSANE; by S. Linton Phelps, M. D.—As the brain, being the highest nervous centre, holds under its control in a large degree the lower bodily functions, it follows that in insanity the conditions governing the best health of the body must often be violated, the result being perverted functions leading finally to serious bodily disease. Insane persons being thus susceptible to almost any disease, is it surprising that the one most likely to attack these people should be that which destroys more of the population than any other? Phthisis kills one-seventh of the people outside of asylums under most favorable circumstances, so among the insane the rate would naturally be much higher. Most of the early writers upon this subject (among them Esquirol, Van der Kolk, Griesinger and others) believe there is a direct relation between insanity and phthisis. Dr. T. J. Mays, of Philadelphia, is convinced that the link which binds pulmonary phthisis to insanity and other neuroses is disease of the vagi. Van der Kolk expressed the same idea many years ago. This opinion does not seem to be popularly accepted. A plausible view of the matter is, that these persons, being unstable in varying degree, would be likely to break down in the direction of their greatest weakness. The result might be phthisis or insanity. In insane people suffering from phthisis the physical signs are often absent. In the beginning the patient is pale and loses flesh. In taking temperature, regular evening exacerbation and morning remission is found. Upon physical examination from week to week, no special symptoms can be noticed. There is no cough, expectoration, or complaints of any kind, but the patient becomes gradually very weak. Loss of flesh and rise of temperature are the two sure signs when other symptoms are latent. Occasionally there is a typical racking cough, but this is uncommon. The appetite remains good unless, it may be, during the last week or two. This seems contrary to Clouston, Savage, Mann and others, who state, as a rule, tendency to refuse food with delusions of suspicion. The author has noticed but two cases of such delusions, though

these did not refuse food. Dr. Phelps has noticed that chronic melancholia and dementia are the forms of insanity most liable to end in phthisis, as these diseases offer the least bodily resistance. Savage would also include general paresis in this class, but with this the author disagrees. Out of seventy-five cases of paresis in the hospital but one died with phthisis. From various statistics Dr. Phelps concludes the death rate in asylums from phthisis to be no higher than that in the population outside, living under somewhat similar conditions. He notices no direct relation between insanity and phthisis other than insanity favors the production of phthisis by causing neglect of the body on the part of the patient. As modern asylums are planned with more reference to hygiene, and outdoor exercise of patients has been increased, the death rate from phthisis is lower than in former years. (*Hospt. Bulletin of Second Minn. Hospt. for Insane*, November.)

AMBULATORY AUTOMATISM IN A DIPSOMANIAC.—Dr. Souques (*Arch. de Neur.*, July, 1892) reports the case of a periodical lunatic of degenerative ancestry in whom the subsidence of the dipsomaniac period was followed by automatic unconscious wanderings.

J. G. KIERNAN.

INSANITY IN PRIVATE PRACTICE.—In a paper read before the Illinois State Medical Society, Dr. Dewey, of Kankakee, speaks of the ignorance of the average practitioner about insanity: the course of instruction in the medical schools does not seem to include intelligent treatment of this disease, and in the minds of otherwise able physicians there is often superstition upon the subject. The only remedy for this is a thorough study of the anatomy, physiology and pathology of the brain and nervous system as revealed by the researches of recent years. By being thus ignorant of mental disease the general practitioner may make one of three common mistakes: first, he may hurry the patient off to an hospital when such a course is really unnecessary: second, he may keep the patient at home until some unfortunate casualty occurs, or until the most favorable time for treatment has passed away: third, in dealing with the case he may make an unwise use of powerful nervines, sedatives or narcotics, and he may resort to harsh measures of re-

straint, or indiscriminately indulge whims of patients and friends in such a manner as to be harmful. After making suggestions under these three heads the doctor concludes by deprecating any deceitfulness in dealing with the insane, and by emphasizing the guiding principle which is needed more than any other in the treatment of such unfortunates, namely: "to treat them as far as possible in the same way in which we would treat a rational fellow-being or wish to be treated ourselves".

SOME OUTLINES OF STATE POLICY IN THE CARE OF THE INSANE.—In a second paper Dr. Dewey's purpose is to present ideas in relation to the general subject of the care and treatment of the insane, and on the construction, administration and organization of institutions for this class of citizens. After elaborating upon the foregoing topics the doctor summarizes as follows: "*First.*—The increase of insanity, and the large number now unprovided for, render it exceedingly desirable that a settled line of policy which will meet the requirements of humanity and economy, may be arrived at and generally agreed upon. *Second.*—Institutions were formerly provided which were ill-adapted for meeting the greatly varying conditions among the insane, and were too expensive in their construction. A reaction has taken place, and a notable change in the style of construction has grown up in the last ten or twelve years; and simple, inexpensive, two-story buildings, much like an ordinary house, have been found feasible for the great mass of the insane. Thus a greater degree of adaptability has been secured to the varying conditions of the insane. *Third.*—For good management and for the welfare of the insane, separate institutions are needed for certain classes; namely, the insane criminals, the epileptic insane, and, where possible, the victims of alcohol, morphine, etc. *Fourth.*—In every institution having a large number of patients there are certain groups of patients which should have, by means of detached buildings, such separation as will minimize the evils of associating the insane. These groups are the curable patients who should be in "curative wards" especially constructed for them, the "habit" cases and those of neurasthenia (unless removed to a separate institution), the bodily sick and the infirm patients, and the refractory patients. By suitable arrangements the groups of buildings

for these patients can be an integral part of the institution, near enough for good administration, yet separated so as to prevent injurious contact and association. *Fifth.*—The size of the institutions has been continually increasing, and the movement in this direction seems to be unavoidable. There are, however, advantages in the large size of institutions which compensate, in a measure, for the drawbacks. The insane, when associated in considerable numbers, fall into certain homogeneous groups, each sufficiently large to have buildings and surroundings proper to themselves; while in smaller numbers such classification is impossible. Further, the great majority of the insane have been accustomed to very similar previous conditions of life, which admit of much uniformity in their care and surroundings. Incidental to the size of institutions, great stress should be laid on the importance of determining, *when an institution is begun, what its ultimate size shall be.* *Sixth.*—In the government and supervision of institutions for the insane, a Board of Charities, with advisory and supervisory powers, is to be preferred to a commission of lunacy with mandatory powers; and the Board of Charities, as well as the boards of trustees or managers of institutions, should be non-partisan and uncompensated. Such Boards should have a lawyer and a physician, and, where practicable, a woman, as members of the Board. *Seventh.*—County authorities should not have the care and control of the insane in whole or in part. The county government is not adapted for the insane, and a combination of State and county agencies is only an “entangling alliance.” The State ought to be able to do anything that a county can do, and do it better. At the same time the county system, as originally established in Wisconsin, possessed elements of value worthy of imitation, especially in the frugality and industry secured. *Eighth.*—Voluntary or self-commitment of the insane is something that it is desirable to provide for in the commitment laws, as it is already done in several of the States. *Ninth.*—Training schools for the attendants are desirable in every institution for the insane. *Tenth.*—A woman physician should be a member of the medical staff of every large institution for the insane. *Eleventh.*—A large amount of scientific work is desirable as a feature of the work of institutions for the insane, and such work should be encouraged both by the State and by the management of the various institutions.”

SOME ILLUSTRATIONS OF THE WORKING OF THE PLEA OF INSANITY IN CRIMINAL PROSECUTIONS. — Dr. Dewey read a paper with the above title before The Chicago Medico-Legal Society, in which he presented several facts that had come to his knowledge as medical superintendent of a state hospital for the insane, illustrating the evasion of the law by the plea of insanity. Medicine stands ready to do her worthiest for furthering the ends of justice, but is dependent upon law for her opportunity. Illinois and two or three other states have made a step in advance by establishing separate asylums for insane criminals, but this is of no avail where the plea of insanity is fraudulent. It is believed the present evils will exist as long as the ordinary method of obtaining testimony continues, namely: that of permitting each side in any given case to procure as witnesses whomsoever they list. The manner in which reform may be accomplished is one for lawyers and legislators to discuss, but the essential object to be attained should be by the summoning of the court itself—and not by any party to any litigation—of persons capable of giving expert advice and assistance without reference to its bearing upon any personal interest, whose decisions should be authoritative and open to no doubt, either of dishonesty or incompetency. Dr. Dewey concludes by saying: “The failures of justice would be remedied, to a great extent, by a better system of regulating expert testimony, and especially by legally defining and restricting the functions of experts in such a manner that the expert shall be *amicus curiæ*, an assistant to the court, and not, as sometimes happens, a suborned and hired accomplice to the prisoner’s guilt”.

EDITORIAL NOTES AND COMMENTS.

MODERN METHODS.—There are many indications in medical literature that the younger generation of physicians is finding practical use for the evolutionary philosophy in explaining questions of physiology and pathology. The Platos and Spencers have long to wait before their teachings percolate through to practical life, for the plain worker does not readily see how their fine theories can help him to work easier or better. But, happily, the race is gaining rapidly in catholicity and adaptability of thought, and men now receive and apply with more readiness the results of philosophical teaching. This gain has quickened the pace of the century, has widened the horizon of thinking people, and has made Spencer and Heckel familiar, not alone to the cultured, but to such as shove the plane and carry the hod. The general acceptance of the evolutionary idea is not a craze, but has been a growth, and it promises to be the working basis for the future. It appeals not to sentiment, but to reason, and it appeals to reason because it explains the origin and meaning of life as we see it, how through an unvarying and beautiful order, and in obedience to a single law, nature has woven the complex fabric of organic structure. And it shows, too, and this is the important point for the physician, how by a reversal of this order nature undoes by disease what growth has done, thus unraveling in an orderly way the complexities of structure. Many recent medical writers, notably Hughlings-Jackson, Maudsley and Mercier, have given a new interpretation to mental phenomena, both normal and morbid, because they have studied them by the light of the new philosophy. One gains vastly by having some theory on which to string his facts, for he thereby gets order and precision. The accuracy and method of interpretation which the development theory furnishes is silently but rapidly modifying our views of mental pathology. While all investigations into the pathology of insanity are to be encouraged, there is certainly a limit to the revelations of the microscope, and we fancy it is in the unknown region beyond these limits that lie the pathology of insanity—if pathology it can be called. Gross lesions as the pathological basis of insanity reveal something to be sure, what might be called the capes and promontories of the unexplored region; but, after all, they

furnish but vague information of the molecular condition of nerve cells of which insanity is the symptom. Who hopes that the microscope will ever show us the pathological condition of which melancholia and acute delirious mania are symptoms? It will probably never reveal the mystery, for the condition is, in last analysis, molecular, and is beyond the reach of the skill of the laboratory. The explanation will, however, come, and probably through various sources; through a better knowledge of comparative psychology, through an understanding of the mental evolution of man and animals, and above all, in a thorough knowledge of the chemistry and physics of cell life. This kind of investigation requires technical knowledge applied to different orders of facts by many investigators working in different fields, and then the application of this vast knowledge to mental pathology.

In this note we but indicate the direction in which present tendencies point. We believe that splendid results are to follow the new method, and hope it will furnish something tangible and useful for the present theories of mental pathology, which are but a tangled brush heap of conflicting theories and unproved assertions.

WEISMANN'S THEORY OF HEREDITY.—It is, perhaps, well that we are free to speculate and fill the scientific air with castles of theory, but this liberty often results in monstrosities of opinion. When metaphysics was the fashion, speculation took the place of observation. It was the favorite pastime of the philosophers to juggle with "essences" and "potences" and other mysteries conjured by imaginations unhindered by facts. We of this generation have inherited a share of this spirit, and are still inclined to go beyond the phenomenal world even in matters of science. It is strange how often great minds find difficulty in getting rid of the disposition that is characteristic of the savage and primitively civilized state, to rest content with explaining complex things by some one general force or principle. To the savage the infinite exhibitions of nature's forces are accounted for by the assumption that behind them all is hidden his capricious deities. How recently we have overcome this tendency the words "spirits" in our pharmacopœia, and "phlogiston" in the chemistry of the last century show. Darwin's tendency to deify natural selection to the neglect of other elements of organic evolution, shows how hard it is

to grasp the complex and infinitely numerous factors of causation, especially as they relate to biology. Weismann's theory of heredity illustrates this tendency, for he comes very near defying natural selection and adaptation. Weismann's theory is summed up in the formula of the "continuity of the germ-plasm". The theory is, that there is in the germ cell a substance of definite chemical and molecular structure from which reproduction takes place. In each reproduction a part of the germ-plasm is not used up in the making of the new body, but is reserved *unchanged* for the making of the germ-cells of the next generation. Thus from the first organism throughout all the generations of the past there has been this continuity of the germ-plasm, and the process is to be continued throughout all the generations of the future without loss of individuality to the germ-cell and without any modification of it from the conditions that affect the organism that bears it. In accordance with this theory there is no transmission of acquired characters, for if the germ-cell thus leads a charmed life in the body that temporarily bears it, unchanged by the ~~ambitions~~ *condition* that impress the organism of the parent, there will be no new characters to transmit. There is, apparently, a great deal of metaphysics in Weismann's theory. It is important to note that he does not speak of the continuity of germ-cells, but of the peculiar substance that cannot be seen by the microscope, nor can be demonstrated by chemical processes, which he chooses to call "germ-plasm". This substance, he holds, possesses continuity and sameness, and yet that it indefinitely reproduces itself. It is unchanged by the environment, or by any changes in the organism that bears it, while at the same time it depends upon this organism for its nutrition. All this is sufficiently metaphysical to please even Sir William Hamilton. One is struck with the resemblance of this theory to the *pre-formation* theory of Boerhaav, which taught that in every germ-cell was a model of a new organism, complete in all its parts, and in the germ-cell of this new organism another one, also complete, and so on for all successive generations in ever smaller miniature. If it could be demonstrated that modifications in the parent were, in one single instance, inherited by the offspring, this would disprove Weismann's theory, at least it would be a positive contradiction of the central idea. There seem to be a good many facts that contradict it. Dr. C. G. Lockwood

has recently produced a race of tailless mice. He selected a pair and put them in a cage by themselves, and by clipping their tails off got a breed of tailless mice in the seventh generation. Then by taking one with a tail and one without a tail, and alternating the sexes in each generation, he finally again got a breed of all-tail mice. This looks very much like the inheritance of an acquired character, although Weismann says such things cannot happen. Brown-Séquard produced epilepsy in Guinea pigs by injury to the nervous system, and he found that this epilepsy was inherited. Weismann thinks that the best explanation of this is, that there was microbic poisoning of the parental germ, and that the inherited epilepsy was due to the transmission of microbes. We are not aware that there is any authority, however, for his opinion. "In some hot countries there are certain species of trees protected against leaf-devouring ants by body guards of smaller ants. In the limbs of these trees, which are of different varieties, are found little chambers which serve the ants protecting the trees, for dwellings and breeding places." Now, are we to suppose that these chambers, found in various species of trees needing protection, are simply voluntary variations, or were they acquired by ants boring in the limbs, and later became hereditary? The latter explanation seems to us more reasonable.

Weismann's theory is a complete reversal of all our ideas of heredity, and, while this is no argument against it, we cannot see that he has yet adduced sufficient evidence to sustain it. That acquired characters are inherited is in harmony with universal experience. Of all the facts concerning the succession of organic life there is no one belief in favor of which there is such a large mass of facts. It is possible that these facts can be differently interpreted, and all attempts such as Weismann's should be welcomed. As yet, however, we cannot see that he has done so; nor can we see that his theory, even if correct, is any explanation of heredity, or even an approach to it. It explains one very complex, and as yet imperfectly understood phenomenon of nature, by invoking the aid of a mystery—the "continuity of the germ-plasm".

A RETROSPECT.—A recent visit to the college where the writer graduated, naturally recalled student days and the old guard of medical men who gave to Bellevue its original fame. Many of us, then young and ardent, entertained

ambitions that have not been realized, but in the fading of these illusions we have learned that life keeps her promises to those who do not expect too much of her, and, too, we have learned to adjust our expectations to our capacities, and the homely, but stern, conditions of existence. It is doubtless true that there is in our ambitions, as in our ideas, a selective process going on by which the fitter prevail. Those that are unadjustable to our life we first neglect and later are quite inclined to disown. It is, however, a pleasant experience to return to the old college and take an inventory of the professional years that bridge the interval. How crude those early ideas, how bewildering that jungle of medical facts and theories, and how slowly we gained a little system and order as experience was enlarged! To the writer hereof there are no more pleasant memories, and none he esteems more valuable, than the personality of those college professors, the influence of which was a part of the benefit of the instruction. What student can forget Hamilton, the Chesterfield of the faculty, courteous, talented, and sincere, constitutionally incapable of pretension? In many respects he was an ideal man; able, bold and always positive in his opinions, he yet saw the good in others and did not hesitate to give due credit. He was, in himself, a positive educative force, and must have had a lasting influence upon the lives of many young men. Van Buren was also a fine type of man. His learning, experience, and the cheerful dignity that held in solution a quiet humor, gave him a strong hold upon the class and made him an impressive and valuable instructor. Intellectually vigorous and of large mental grasp he seemed also to embody the Greek requirement of the surgeon, that "he have an eagle's eye, a lion's heart, and a lady's hand". No less happy was the influence of Austin Flint, who was one of the great medical men of the century. His dignified and kindly manner adorned a strong character, and one that made itself felt in the college and also in the profession throughout the country. These we have mentioned have "passed to the other side", but they completed a great work before they went. In the hurry of life's duties, and the narrowing tendency of competition, we are too apt to overlook the educative effect of human intercourse, the unconscious influence that one man has upon another. The great forces of the world work in silence and concealment, and in human relations the

anonymous and unmeasurable influences are no less important than those that are more noticeable and the result of intentional effort. Lives like these are inspirations to those who have profited, not alone by their teaching, but by those intangible qualities that are not expressed in words and yet refine and elevate, and become a living force in our life. Such men were those we have mentioned. All honor to them for having blessed the world with their talent and character, and for having transferred to others some of those fine qualities that made their own lives just.

DR. H. M. LYMAN AND DR. L. C. GRAY.—It is seldom we have the opportunity of noticing two works of such merit as that by Dr. Lyman on Practice of Medicine, and that by Dr. Gray on Nervous and Mental Diseases, reviewed elsewhere in this issue. Rarely do we find in a work on medicine so many excellencies as in the one by Prof. Lyman. It combines brevity with a full treatment of subjects; essentially conservative, it yet epitomises medical progress; though strictly practical, it is thoroughly scientific and is the summing up of the results of a large personal experience by one who is a pains-taking observer and an accomplished scholar. To the work by Dr. Landon Carter Gray every word of this is alike applicable. Embracing the entire field of which it treats it answers all the requirements of a practical and scientific treatise, and is compact and closely written, without a fact omitted or a page too much. Though rigidly accurate it is easily comprehensible to the untechnical reader, is thoroughly reliable and contains the results of latest investigations. We congratulate Drs. Lyman and Gray upon the completion of their tasks and predict the profession will not be slow to show their appreciation.

DR. S. C. JOHNSON.—The appointment of Dr. S. C. Johnson, of Hudson, as Surgeon-General of Wisconsin, was the best that could have been made and is universally acceptable to the profession of the state. As a leading practitioner in an extensive field, and as a surgeon for various railroad companies for many years, the doctor brings to the position two essential qualifications, the mental discipline of a large experience, and a kindly but vigorous personality. We congratulate General Johnson and hope his official career may be long and useful.

DR. N. SENN.—Dr. Senn, who until recently was Surgeon-General of Wisconsin, has been appointed to a similar position in Illinois. It is a tribute to Dr. Senn that in each instance he was selected by a governor politically opposed to him. Dr. Senn showed what one man can accomplish in a short time, by his systematic reorganization of his department in Wisconsin and by the creation of the National Association of Military Surgeons. We predict the blood will soon begin to flow vigorously in the arteries of the Surgeon-General's department of the Illinois militia.

SENSORY-MOTOR DISTURBANCES.—An article of more than usual interest, from the pen of Dr. H. A. Tomlinson, of Minn., appears in the October number of the *Journal of Mental and Nervous Disease*. The doctor discusses sensory-motor disturbances in their relation to molecular activity of the nerve cell. The article is an able one and illustrates the advantage of the modern methods that enable us to penetrate beneath the surface of things. The man who studies successfully the mechanism of disease of the nervous system must be a scientist in its wider sense, and Dr. Tomlinson seems to answer this requirement.

A NEW INTESTINAL OPERATION.—Dr. M. E. Connell, of the Milwaukee County Hospital, published in the *Med. Record* of Sept. 17, an article on an improved technique in enterorrhaphy. By this operation the doctor reduces the number of stitches to two, or even one. Having witnessed its application to dogs we can testify to its simplicity and efficiency, and predict for it a large field of usefulness in operations upon the intestinal tract.

CORRESPONDENCE.

Section of Neurology and Medical Jurisprudence, AMERICAN MEDICAL ASSOCIATION.

CHICAGO, January 15, 1893.

To Dr. J. H. McBRIDE,

Dear Doctor:—The AMERICAN MEDICAL ASSOCIATION will meet at Milwaukee, Wisconsin, during the first week in June, 1893, and as it is desired to make the meeting of the Section on Neurology and Medical Jurisprudence of the Association one of unusual interest and value, you are earnestly requested to contribute to this end by the presentation of a

written communication on some neurological or medico-legal subject, or by bringing for exhibition and discussion anatomical or pathological specimens.

If you have not yet chosen a subject, but are willing to take part in the work of the Section, please notify the Secretary at once of this intention, and as soon as possible forward the title of your contribution. It will facilitate the work of the Section to send an outline of your paper. A preliminary programme will be published during March.

JAMES G. KIERNAN, M. D.

834 Opera House Block, Chicago, Ill.

Officers of the Section.—Charles K. Mills, M. D., 1909 Chestnut Street, Philadelphia, Pa., Chairman. James G. Kiernan, M. D., Chicago, Ill., Secretary.

Executive Committee.—O. Everts, M. D., Cincinnati, Ohio; H. N. Moyer, M. D., Chicago, Ill.; Justin E. Emerson, M. D., Detroit, Mich.

REVIEWS, NEW BOOKS, ETC.

A TEXT-BOOK OF THE PRINCIPLES AND PRACTICE OF MEDICINE, FOR THE USE OF MEDICAL STUDENTS AND PRACTITIONERS, by Henry M. Lyman, A. M., M. D., Professor of the Principles and Practice of Medicine in Rush Medical College, Chicago, Ill. With one hundred and seventy illustrations. Philadelphia, 1892, Lea Brothers & Co.

A work on the practice of medicine by one so long and favorably known as a teacher and author as Dr. Lyman, is sure of the careful attention of the profession. He states that the book is mainly the result of his own experience and observation. In order to adapt the work to the needs of the medical student, theoretical and historical matter has been omitted, the author confining himself to a concise statement of facts. The arrangement is to some extent novel. In the usual chapters on pathology, immunity, a new subject in text books on medicine, is sketched. Inflammation is stated to be usually microbic in character. The diseases caused by gross parasites are first considered, followed by those of known or suspected microbic origin. Although fibrinous pneumonia, which is attributed to the pneumococcus, is considered under diseases of the lungs, pulmonary phthisis is discussed under the head of tuberculosis, together with all the other forms of "medical" tuberculosis. This latter arrangement is certainly more

convenient, as well as more scientific than the usual one of running the results of one etiological factor upon various organs through an entire book. A great deal of stress is laid upon the local treatment of diphtheria by means of swabbing with mercuric chloride. Its internal use in large doses is not mentioned, although popular with some physicians. Instead, the internal use of turpentine is recommended. In the chapter on Tuberculosis almost two pages are devoted to scrofula, a word long banished from modern medical literature. We cannot but be thankful to the author for rescuing this useful term from its threatened oblivion. He uses it to designate "that peculiar predisposition or diathesis which favors the occurrence of tubercular infection" (p. 159). Syphilis is treated in a similar manner to tuberculosis, as an entity. Cerebral syphilis receives full treatment. In regard to treatment it is stated that "iodide of potassium should be given usually in five-grain doses three times a day, although many physicians advise * * * * one or even two drachms three or four times a day" (p. 211). Of course mercury and adjuvants are also recommended. The chapter on Cholera is full and thoroughly up to date. The very latest contributions to therapeutics appearing in periodical literature, such as hypodermoklysis, enteroklysis and the use of large doses of salol, being considered. An instructive chapter on the Management of Infective Diseases closes Part II. The subject of chronic gastric catarrh receives brief attention. The author states that in intussusception the results of operation have not been encouraging, while in intestinal obstruction and occlusion "the knife should be used as early as possible....." (p. 367). It would be a very interesting task to go through the entire work seriatim if the space permitted, but the above notice must suffice to show the views of the author upon some subjects of general interest. The remaining chapters, upon the diseases of the various viscera as well as general diseases, are as full as the bulk and scope of the work allow. It is in Parts X to XIII, treating of Diseases of the Nervous System, that readers of this periodical will be most interested. These occupy over 161 pages, or nearly one-fifth of the volume, and open with a consideration of the diseases of the peripheral nerves. For acute multiple neuritis, salicylic acid in doses as large and as frequent as the patient will tolerate is ad-

vised. The coal tar preparations are also recommended. Acute ascending paralysis is classed with the functional diseases of the cord, as are professional spasm, tetany and Thomsen's disease. In the treatment of acute myelitis, iodide of potassium and the icebag are recommended. The same treatment is suggested for multiple sclerosis, which is treated quite fully in regard to symptomatology and diagnosis. Spinal concussion and traumatic neuroses are considered together, but briefly. In regard to the etiology of locomotor ataxia, Dr. Lyman adopts the views of Erb and Strümpell that "about ninety per cent. of the cases are dependent upon previous syphilis, though it probably bears the same relation to that disease that so many other nervous diseases sustain toward infective diseases generally" (p. 826). In the treatment, "ergot, belladonna and similar remedies should be avoided" (p. 830). His experience with suspension has been the usual one. The section on Anterior Poliomyelitis, although short, is very good. The chapter on Bulbar Lesions is accompanied by a full page illustration showing the location of the nuclei of the cranial nerves. In Part XII, devoted to Diseases of the Sympathetic Nerves and of the Muscles, a number of rare and interesting conditions, such as acromegaly, myxœdema, erythromelalgia, intermittent angioneurotic œdema and Raynaud's disease, are briefly sketched. The chapter on Localization and Diagnosis of Cerebral Lesions is very good indeed, and is accompanied by several clear diagrams which will materially aid the student in grasping this subject. This is especially true of the diagram after Eichhorst on page 872, which will no doubt help many through the mazes of the different varieties of aphasia. The author evidently does not believe that the lancet should be altogether abandoned as he recommends its use in sunstroke when there is evidence of great venous stasis, and in cerebral hemorrhage where the pulse is full and there is evident congestion of the face and head. Encephalitis is described as resulting in either softening or abscess, the diffuse hemorrhagic variety, of which a number of cases have been recently reported as following influenza in Germany, not being noticed. Choked disc is stated to be of occasional occurrence in abscess. In infantile hydrocephalus, puncture and drainage of the cranium followed by compression is suggested. A consideration of a number of functional cerebral disorders, ranging

from epilepsy to neurasthenia, closes the work. This book can be cordially recommended to the profession, not alone to the general practitioner, but to the neurologist also, who will find the knowledge of his specialty well epitomized in its pages. In Dr. Lyman's connection with colleges, we believe he has filled, successively, every chair except that of surgery, an experience which few men have had, and fewer still could have met so successfully. This experience has furnished a rare foundation for a work on medicine and it has been well utilized. The author's position as Professor of Diseases of the Mind and Nervous System at Rush has given him opportunities as a specialist the results of which are on record here, to the great value of the book. Last, but not least, we are glad to commend the excellent literary style of the work. It is no exaggeration to say that no work on practice has appeared since the days of Thomas Watson written in such clear and beautiful English. We are the more happy to be able to record this fact because the average medical work is sadly lacking in literary finish, indeed, the majority give one the sensation of riding over a corduroy road. The work of Professor Lyman furnishes not only profitable, but pleasant reading, and from preface to finis we feel the presence of a strong personality and the inspiration of an attractive style. The cuts are well executed, and the illustrations of diseased conditions are mainly from the author's own clinical material.

A TREATISE ON NERVOUS AND MENTAL DISEASES, FOR STUDENTS AND PRACTITIONERS OF MEDICINE. By Landon Carter Gray, M. D., Professor of Nervous and Mental Diseases in the New York Policlinic, etc. With one hundred and sixty-eight illustrations. Philadelphia, Lea Bros. & Co., 1893.

There is probably no department of modern medicine in which progress has been so marked in the last decade and in which refinement in diagnosis has reached such perfection as in nervous diseases. Although we possess many good textbooks on this subject yet the advance is so rapid that each succeeding author has something new to tell. No apologies are needed for the appearance of this work. Its information is so exhaustive and yet so concise that the reader feels that he has learned all there is to know on the subject, while the bulk of the book is not unusual. The

author states that he does not assume previous knowledge of his subjects on the part of the reader. The book opens with a very clear and instructive chapter on the Anatomy of the Cerebro-Spinal Nervous System, illustrated by sixty figures. This is succeeded by a chapter on Electricity, which contains not only all that it is desirable to know of electro-diagnosis, but a great deal of detail in regard to the selection and use of batteries and accessories. He next considers Localization. He states (p. 122) that "it is being shown more and more clearly that the metaphysical entity which we call mind is dependent upon the structural integrity of the cortex as a whole". He never misses an opportunity of impressing upon the reader the important fact that hemiopia and hemianopsia are not the same. In regard to neuralgia, which is the first disease considered, he expresses the opinion that all the theories as to its pathology are purely speculative and are likely to remain so. Beri-beri is classed with multiple neuritis. Under the heading of Myelitis the author has grouped all the unsystematized inflammations of the cord. He has made the curious observation that "the lower orders of Germans and Irish have less recuperative power in myelitis than other races". Why this should be it is hard to imagine, as these nationalities certainly comprise the better part of our laboring populations and usually live under better hygienic conditions than the Poles, Italians and others. His main reliance in this disease is upon electricity. A very good description of caisson disease is given. Progressive muscular atrophy, he states, may be of three-fold origin: 1, it may be due to a lesion of the trophic cells in the anterior horn; 2, it may be purely muscular; 3, it may be due to a combination of these lesions. Although the author regards syphilis as by far the most frequent cause of locomotor ataxia he does not think that it is due to cerebro-spinal syphilis in the majority of cases. In spite of the fact that he is rather an optimist in therapeutics he states that there is not a case on record to prove that the anatomical lesion of locomotor ataxia can be cured. He is "inclined to think that many of these cases" (of ataxic paraplegia) "are really cases of spinal syphilis". A good deal of space is devoted to syringomyelitis. "It is now quite the fashion to report so-called cases of syringomyelitis. But the significant fact stares us in the face that in not a single instance that I have been able to find has the diagnosis been made before death." In traumata of the

cord he thinks that surgical interference should be prompt when decided upon, especially in those cases in which there is indubitable evidence of compression. In hypertrophic paralysis he has found massage to give great relief. In fact, he expresses the intention to treat his next available case with gentle and long continued massage combined with iodide of potassium and mercury. This he has thought practicable from *a priori* reasons but has not had a chance to carry it out. In all cases of intracranial growth the iodides and mercury should be pushed to saturation. But in all cases in which the growth is rapidly proceeding in spite of treatment an operation should be done. "But I am firmly convinced that we usually wait too long before operating." A temporary craniectomy, with a liberal exposure of the brain, and, if need be, careful incision of this organ, are advised. The same treatment should be carried out in cerebral abscess, which latter, however, gets rather scant treatment, only one and one-half pages being devoted to it as against fifteen to cerebral tumors. In epilepsy, also, especially when due to traumatism or to some recognizable lesion of the brain, he is in favor of operative measures. Again in hydrocephalus, "two pieces of bone, two or three inches across and three or four inches long from each side of the skull on each side of the median line" should be removed in order to relieve the compression. The effect, however, will be only temporary. In intracranial hemorrhage in full-blooded persons venesection is advised to the extent of ten to twenty ounces. "The immediate results are sometimes startlingly beneficial." When he comes to speak of hyperæmia and anæmia of the cord and brain he takes decided issue with the distinguished gentleman who has described these conditions so fully. In fact, some of his remarks are quite caustic and pointed. "The truth of the matter is, that our knowledge of nervous diseases has increased so rapidly within the last quarter of a century as to make it a matter of little surprise that the older authors should have attempted to satisfy their ignorant consciences by dubbing as hyperæmia and anæmia the many puzzling symptoms which time has resolved into distinct symptom-groups. The most difficult of all phrases for the average scientist is, 'I do not know'. The disease must be labelled at any cost, and, once labelled it takes many years to rub out the brand" (p. 344). Again, in speaking of the cerebral palsies of infancy he mentions Strümpell's

theory of a motor polio-encephalitis as "one of the most flippant pathological suggestions ever made in medicine". The author has found in cerebro-spinal syphilis the most satisfactory results from "a conjunction of the iodides with the brilliant treatment that has been made known by Dr. Weir Mitchell under the name of 'Fat and Blood Making', a therapeutical procedure that, in my humble opinion, will rank in coming years with the surgical revolution inaugurated by Lister" (p. 372). In epilepsy his main reliance is, of course, on the bromide salts, although he states that "trephining is a harmless procedure under proper antiseptic precautions and may disclose conditions which otherwise could not have been brought to light". He also calls attention to the important fact that epileptics will do well for a time upon any change of treatment, medical or surgical. The diseases described by various authors as "jumpers, myriachit, latah, and tic convulsif," are classified as palmus or twitches. Dr. Gray is a believer in the great possibilities of psychical medicine but is not at all extravagant in his claims. In hysteria, hypochondria, somnambulism, trance and catalepsy these measures are especially advised, and he is inclined to try it in the future in the occupation neuroses. The chapter on Neurasthenia, the largest in the work, is complete and exhaustive. In the chapter on Hydrophobia, he expresses the firm conviction that there is such a thing as lyssophobia, or nervous rabies, and that it may cause death. A chapter on Certain Nervous Symptoms Common to Different Diseases, comprising vertigo, headache, insomnia and coma, follows. For this the inexperienced practitioner will be thankful, as these frequently present themselves as clinical entities. An interesting chapter of ten pages on the Medico-Legal Bearings of Traumatism, in fact, on Traumatic Neuroses, closes the neurological section of the work. On reaching the part of the book devoted to mental diseases the reader is surprised to find that the author has omitted the two things formerly thought necessary as introductions to the subject, namely: a classification and a definition of insanity. He would impress upon the reader the folly of attempting a classification by mere symptoms. In this he is in very good company, for Wernicke has lately protested against teaching the student the "useless, nay, even detrimental art of crowding a clearly comprehended picture of a case into the Procrustean bed of an artificial classification". (*This*

Review, Sept. 1892, p. 90.) Chapters on Delusions and Hallucinations, Morbid Fears and Impulses, Sexual Perversions, and Simulation follow. In regard to the last, he states that it can only be detected by one who is thoroughly acquainted with the different types of insanity. The author has discovered that in simple melancholia, three symptoms are characteristic: a peculiar facies, obstinate insomnia, and a peculiar post-cervical ache. None of these alone, but two or all together, are pathognomic. In 175 cases all three were present in 54 per cent.; the post-cervical ache was absent in 18 per cent.; the insomnia in ten cases. Isolation is insisted upon in melancholia. Opium is his main reliance for treatment. For the insomnia, his choice of drugs is: sulphonal, chloralamid, urethan, paraldehyde and chloral, in the order named. His favorite sedative in all cases of mental excitement is hyoscine in doses of 1-100 grain. Mania, which next follows, is rather shortly treated. The position of Katatonia as an independent disease it is stated is still *sub judice*, although the author seems to incline toward Kahlbaum's views. In Periodical Insanity, the author has seen good results from the use of cannabis indica. Furor Transitorius and Delirium Grave are each discussed. Epileptic Insanity, a subject of considerable medico-legal importance, is rather fully considered. Hallucinatory Insanity and Hebephrenia both get rather short treatment at the hands of the author, while Paranoia and Paralytic Dementia receive the full consideration their importance requires. In all his cases of the latter disease a history of cerebral syphilis has been shown. Consequently, specific treatment should have a trial at the outset. The titles given above comprise the classification of insanity according to the author. In the chapter on Idiocy, which follows, he warns against a too enthusiastic adoption of the operation of craniectomy. An extremely interesting chapter, giving a resumé of our knowledge of the Pathology of Insanity, closes the work. The glossary appended will be highly useful to readers. The bibliography throughout is very full and bears witness to the author's great industry. We predict for this book a great and lasting popularity. While strictly scientific, it is essentially practical. The language is simple and clear, the style charmingly easy and, at times, even conversational. The writer cannot recall one abstruse or involved sentence. In his preface, the author states that the leisure of seven years has been

devoted to this work, yet no one can point out a section which is not wholly modern and up to date. While the author is not a medical Nihilist, his therapeutic enthusiasm is tempered by a calm judgment and a ripe experience. The illustrations are excellent, and mostly original. The usual stock diagrams and cuts used to illustrate these subjects being happily absent. On the whole, the American profession cannot but be grateful to the author for giving them this most valuable work upon a class of diseases, which, in spite of their prevalence, are perhaps least understood of any in the domain of practical medicine. One charm of the work is the feeling that behind it there is a strong personality that presents in a vigorous and beautiful style, the ripe experience of an observer who is self-reliant and eminently practical. Comparisons between works by different authors on the same subject are not always just because each has its merits and its faults. Considering, however, the large scope of this work and the compactness that a reasonable brevity made necessary, we think the general verdict will be that Doctor Gray has written the best work on mental and nervous diseases that has ever appeared in the English language.

A STUDY OF THE ARTEFACTS OF THE NERVOUS SYSTEM. THE TOPOGRAPHICAL ALTERATIONS OF THE GRAY AND WHITE MATTERS OF THE SPINAL CORD CAUSED BY AUTOPSY-BRUISES, AND A CONSIDERATION OF HETEROTOPIA OF THE SPINAL CORD. By Ira Van Gieson, M. D., Assistant in Histology at the College of Physicians and Surgeons, Columbia College, New York, etc. Reprinted from the *N. Y. Medical Journal*. New York: D. Appleton & Co., 1892.

This work is rather revolutionary in character. It takes up a subject of great interest to the neurologist as well as to the pathologist, and demonstrates that the opinions held heretofore have no foundation. The work is systematically divided into sections. Section I is devoted to a consideration of malformations of the cord in general, both the congenital and acquired. In Section II the author reviews the published cases of true heterotopia of the cord and medulla. Out of 31 published cases he has demonstrated that only six are cases of true heterotopia. To this list he adds two personal cases. Section III, on the methods of removing the cord at autopsies, and their relation to the production of ar-

tificial malformations by bruises, will be appreciated by all who have attempted this most difficult task, or have witnessed it. He shows that it is almost impossible to remove a cord, especially if at all softened, without some bruising. From a laboratory collection of cords and from routine autopsies, the author, in Section IV, cites a number of cases of heterotopia unintentionally produced. Section V is devoted to a description of the results of experimental bruising of the human cord, both gross and microscopic. These results vary from the dislocation of a minute bit of gray matter to the transference to a different level of one or several gray horns, or a more or less complete duplication of the entire cord. Section VI contains an analysis of all the erroneous cases of malformation of the cord heretofore published. It is accompanied by reproductions of the original figures. A comparison of these figures with those of the author showing artificial heterotopia is most convincing. These cases are twenty-four in number and have been reported by observers whose names are usually synonymous with careful observation. Section VIII treats of the diagnosis of spinal-cord bruises. The white fibers, even if not displaced, will show distortion due to traction and compression. This article was abstracted in the last number of this *Review*. Dr. Van Gieson is to be congratulated upon the excellent and convincing results of his investigations. He has called attention to a source of error in the study of a subject which, even under the most favorable conditions, is beset with many difficulties. Over 100 figures serve to enforce the author's conclusions. We would cordially recommend all who are engaged in post mortem work or in the study of the cord, to procure a copy of this work.

TUBERCULOSIS OF BONES AND JOINTS. By N. Senn, M. D., Ph. D., Professor of Practice of Surgery in Rush Medical College; Professor of Surgery in the Chicago Polyclinic; Attending Surgeon Presbyterian Hospital; Surgeon-in-Chief St. Joseph's Hospital; President of the American Surgical Association; President of the Association of Military Surgeons of the National Guard of the United States; Permanent Member of the German Congress of Surgeons, etc. Illustrated with 167 Engravings (seven of them colored). In one handsome royal octavo volume, 520 pages. Extra cloth, \$4.00 net; half-Russia, \$5.00 net. Philadelphia, the F. A. Davis Co., publishers, 1231 Filbert street.

This work comes fully up to the high standard which the author has taught the profession to apply to all his work. As stated in the preface, "The object of the author has been to collect from recent literature the modern ideas on tubercular disease of bones and joints, and present them to the reader in a condensed form, mingled, in appropriate places, with the results of his own experience". That he has labored at this object with his usual untiring industry is demonstrated by the very large number of authors and papers quoted, while his extensive clinical experience entitles him to present his own views with authority. There is little or nothing worth knowing in regard to the subject that cannot be found in this work. Of especial interest to neurologists is the section on laminectomy for paraplegia following spondylitis, to which six pages are devoted. Various authorities differ as to its advisability but the operation is so new that it is still *sub judice*. The language, while necessarily condensed, is still explicit. The mechanical execution of the work, especially of the illustrations, is excellent.

THE STUDENT'S QUIZ SERIES. PRACTICE OF MEDICINE. A MANUAL FOR STUDENTS AND PRACTITIONERS, by Edwin T. Doubleday, M. D., and J. Darwin Nagel, M. D. Series edited by Bern. B. Gallaudet. Philadelphia, Lea Bros. & Co. This little volume is one of the best of the many short cuts to knowledge which have appeared during the past decade. Its information is modern, and although arranged in questions and answers the latter are so explicit that the questions might well have been omitted. The section on nervous diseases comprises one-fifth the book and seems to give all the information needed by the student while cramming for examination. This, indeed, is the main reason for the existence of this class of books. The great danger lies in the fact that students are too apt to rely upon such works instead of studying larger and fuller treatises.

DISEASES OF THE LUNGS, HEART AND KIDNEYS. By N. S. Davis Jr., A. M., M. D., Professor of Principles and Practice of Medicine, Chicago Medical College, etc. Philadelphia and London, 1892, the F. A. Davis Co., Being No. 14 in the Physician's and Student's Ready Reference Series. This little volume is an amplification of the author's lecture

notes upon the same subjects. It contains a large amount of information in a small space and is especially full in regard to therapeutics. The author uses the metric system, but gives the equivalents in the troy weight. This, in our opinion, is a mistake. The metric system is, or should be, so well known by this time that every physician or student should be able to use it. The only way to ever make its use universal in the profession is for authors to use it altogether, discarding the old weights. Until this is done there will always be practitioners too indolent to become acquainted with it. The work can be cordially recommended to all who require a book of the kind for hurried reference.

REFORM IN THE TREATMENT OF THE INSANE. EARLY HISTORY OF THE RETREAT, YORK; ITS OBJECT AND INFLUENCE, WITH A REPORT OF THE CELEBRATION OF ITS CENTENARY. By D. Hack Tuke, M. D., LL.D., formerly Visiting Physician to the Retreat. London, L. & A. Churchill. The foundation of this little book is an essay by Dr. Hack Tuke at the first centennial celebration of the York Retreat, May 6, 1892. The grandfather of the author was the founder of this institution, and was one of the brave men who inaugurated reform in the treatment of the insane and took the first steps toward developing modern methods in caring for them. The book is primarily a history of the elder Tuke and his struggles for reform; secondarily, a sketch of the progress of reform. The age of the elder Tukes marks an epoch in insane hospital history, and their worthy descendant has epitomized it in this essay. The book is interesting and instructive reading.

SYPHILIS AND THE NERVOUS SYSTEM, BEING A REPRINT OF THE LETTSOMIAN LECTURES FOR 1890, DELIVERED BEFORE THE MEDICAL SOCIETY OF LONDON. By W. R. Gowers, M. D., F. R. C. P., F. R. S. Philadelphia, P. Blakiston, Son & Co. This book comprises all the lectures upon this subject delivered in 1890 by Dr. Gowers, republished with many additions. In the three lectures contained in the book the author speaks, first, of the pathology of syphilis, secondly, of the origin of functional nervous disorders attributed to it, and thirdly, of its prognosis. This work is thorough and progressive and omits nothing that is of importance. We commend it to the profession as a valuable epitome of the subject.

A MANUAL OF MEDICAL JURISPRUDENCE. By Alfred Swaine Taylor, M. D., F. R. S. Revised and edited by Thomas Stevenson, M. D., London. Eleventh American edition by Clark Bell, Esq. Philadelphia, Lea Bros. & Co. Mr. Clark Bell has rendered a valuable service to the profession in editing a new edition of this important work. It stands at the head of works upon this subject and is one which every physician should have in his library. This edition brings it down to date and every subject is discussed fully and ably.

LA REVISTA MEDICO-QUIRURGICA.—This journal has an able corps of collaborators and will, doubtless, have a field of usefulness. It is the official Spanish organ of the Pan-American Medical Congress.

THE U. S. Pharmacopœia, "1890," which will be published during 1893, adopts in great measure the *Metric System* of weights and measures; this will, doubtless, create much confusion in the minds of physicians and druggists and lead to many misunderstandings and errors. In order to provide a guide to the proper dosage, etc., Dr. Geo. M. Gould, author of "The New Medical Dictionary", has prepared a very complete table of the official and unofficial Drugs, with doses in both the *Metric* and *English* systems; this table is to be published in P. Blakiston, Son & Co's. Physicians' Visiting List for 1893, together with a short description of the *Metric System*.

THE MESSRS. MACMILLAN & Co., announce that the recently completed edition of Foster's Text-Book of Physiology in four parts is to be supplemented by the issue of an appendix on "The Chemical Basis of the Animal Body," by A. Sheridan Lea, Sc. D., F. R. S. Dr. Lea is Lecturer on Physiology to the University of Cambridge, England.

PAMPHLETS AND REPRINTS.

On the Localization of the Auditory Centre—By C. K. Mills, M. D.

A Contribution from Brain Surgery to the Study of the Localization of the Sensory Centres in the Cerebral Cortex—By P. C. Knapp, A. M., M. D.

A Case of Abscess of the Temporo-Sphenoidal Lobe, and of the Middle Lobe of the Cerebellum—F. P. Norbury, M. D.

Tumor of the Brain—J. T. Eskridge, M. D.

Bilateral Facial Paralysis—M. Imogene Bassette, M. D.

Eye Paralysis—J. A. Jeffries, M. D.

Intermittent Hysterical Paralysis—L. Bremer M. D.

The Paralyses in Children which occur During and After Infectious Diseases—M. Imogene Bassette, M. D.

Myotonia and Athetoid Spasm—C. K. Mills, M. D.

Criminal Responsibility in the Early Stages of Paralysis—F. P. Norbury, M. D.

Local Anæsthesia as a Guide in the Diagnosis of Lesions of the Lower Spinal Cord—M. Allen Starr, M. D., Ph. D.

Early Diagnosis of Spinal Caries—Stanton Allen, M. D.

Researches upon the Ætiology of Idiopathic Epilepsy—C. A. Herter, M. D., and E. E. Smith, Ph. D.

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Typhoid Fever in the Light of Modern Research.—Facts and Doubts about Cholera—L. Bremer, M. D.

Some Clinical Remarks on Dysentery—J. H. Musser, M. D.

A Contribution to the Study of Cystic Kidney—Ludwig Hektoen, M. D.

Observations on the Excretion of Uric Acid in Health and Disease—C. A. Herter, M. D.

Whooping-Cough; Its Management; Its Climatic Treatment—J. H. Musser, M. D.

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The Sanitary Side of the Drink Problem—T. D. Crothers, M. D.

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Aphasia Due to Sub-dural Hemorrhage Without External Signs of Injury; Operation; Recovery—L. Bremer, M. D. and N. B. Carson, M. D. A contribution to Brain-Surgery—Jacob Frank, M. D. and Archibald Church, M. D.

Some Practical Points in the Diagnosis of Spinal-Cord Lesions—Frederic Peterson, M. D.

An Operation for the Radical Cure of Stricture of the Lachrymal Duct with Description of a Stricturotome—C. H. Thomas, M. D.

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Cauterization in Hypertrophic Rhinitis. Condylomata of the Auditory Canal—H. V. Wurdemann, M. D.

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An Experimental Contribution Looking to an Improved Technique in Enterorrhaphy, Whereby the Number of Knots is Reduced to Two, or even One—M. E. Connell, M. D.

Two Cases of Conservative Surgery—F. R. Zeit, M. D.

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Surgical vs. Educational Methods for the Improvement of the Mental Condition of the Feeble-Minded.—F. P. Norbury, M. D.

Medical Manhood and Methods of Professional Success—C. H. Hughes, M. D.

Annual Announcement of the Keokuk Medical College, Session 1892, 1893.

Annual Announcement of the Detroit College of Medicine, Session 1892, 1893.

Report of the Board of Trustees of the Eastern Michigan Asylum at Pontiac for the Biennial Period Ending June 30, 1892.

NEW PERIODICALS.

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McCaskey's Clinical Studies. Published quarterly. From the clinical notes of G. W. McCaskey, A. M., M. D.

MISCELLANEOUS.

COCILLANA—AN INTERESTING ADDITION TO THE MATERIA MEDICA.—Respiratory inflammations always form a large proportion of the physician's cases. A Bolivian remedy which gives promise of much therapeutic efficacy is Cocillana, which was introduced a few years ago through the researches of Professor H. H. Rusby, the eminent botanist. Experiments were made with it by many medical investigators, who found its action very satisfactory in catarrhal inflammations of the respiratory organs, in coryza, hay asthma, bronchitis, acute and chronic, influenza and pneumonia. It possesses also laxative and purgative qualities and has been employed successfully as a substitute for ipecac and apomorphia in catarrhal conditions.

Parke, Davis & Co., who introduced the remedy to

physicians, will supply reprints of articles affording information concerning its therapeutic application, and invite the medical profession to test its virtues further by clinical experiment. They have after much difficulty obtained an ample supply of it, and will be glad to afford any facts desired concerning this or any other of their new remedies for respiratory affections.

Among other new remedies Lehn and Fink are prepared to furnish the trade with phenocoll, thiol and chloralamid, whose therapeutic action is well-endorsed as follows:

PHENOCOLL IN THE TREATMENT OF MALARIA.—Phenocoll, a derivative of phenacetine, has been tried by P. Albertoni (*La Riforma Medica*, February 5, 1892; *Revue de Therapeutique Generale et Thermale*, June 5, 1892) in thirty-four cases of malaria. A permanent cure was obtained in twenty-four; in five the results were doubtful; and in the other five the drug failed to do any good. Some of the patients cured by phenocoll had suffered severe relapses after treatment with quinine. Pnenocoll was given in form of powder, in doses of fifteen grains (one gramme) six or seven hours before the expected paroxysm, and after the disappearance of the paroxysms, to prevent relapses the medicament was continued for some time after. The new remedy has no unpleasant after effects, and the taste is easily disguised by mixing it with sugar. In this manner children take it readily.—(*Univ. Med. Mag.*, Sept., 1892.)

THIOL IN INFANTILE THERAPEUTICS.—Dr. Moncorvo has employed this new antiseptic agent in more than one hundred infantile cases for the purpose of diminishing supuration and for the removal of cutaneous growths, either of parasitic origin (tinea tonsurans, favus, pityriasis, etc.). Thiol may be used with equal efficiency in the dry form (thiol powder), pure or rubbed up in vaselin (5 to 10 per cent.), or in liquid form, pure or diluted with boiled sterilized water. The topical use of thiol was never followed by the least untoward local or general effect. The therapeutical effect was satisfactory in every case. It was used, without fear of danger, on the youngest children. (The author has used thiol in the treatment of erysipelas and lymphangitis, in adults, with the greatest success.)—*The Satellite*.

DR. MONTAGUE GUNNING used a solution of chloralamid with potassium bromide in two cases of sea-sickness with most satisfactory results. The first case was that of a gentleman who previously had never suffered from the affection. After the vessel had left land about three hours he began retching and continued doing so for three hours. Dr. Gunning then prescribed the chloralamid solution, which gave immediate relief, bringing on refreshing sleep from which the patient awakened practically recovered. The other victim was a lady who had suffered for hours, but who slept for an hour after one dose of the remedy and was not again troubled with sea-sickness. The author was so favorably impressed with the action of the remedy that he hastened to call attention to it in the *British Medical Journal*. There is now a good quantity of evidence of this kind.

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THE REVIEW

OF

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A QUARTERLY COMPENDIUM OF THE CURRENT LITERATURE
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THE REVIEW OF INSANITY AND NERVOUS DISEASE.

FOR MARCH AND JUNE, 1893.

NERVOUS DYSPEPSIA.

By H. L. LYMAN, M. D.

Professor Principles and Practice of Medicine and of Diseases of the
Nervous System, Rush Medical College, Chicago.

Nervous Dyspepsia comprises those disturbances of gastro-intestinal digestion that are chiefly dependent upon disorder of the nervous system. By a large class of pathologists such disturbances are assigned to the category of inflammations involving the mucous membrane of the stomach and small intestine; for such observers dyspepsia is merely the result of a catarrhal gastro-enteritis. But careful investigation leads equally competent students to the belief that in many cases inflammation plays only an inconsiderable or secondary part among the causes of disorder. It is probable that the relation between nervous disturbances in the alimentary canal and inflammation of its mucous membrane is not unfrequently analogous to what is sometimes observed in the laryngeal cavity when muscular rheumatism temporarily invades the laryngeal muscles, producing hoarseness, or aphonia, without inflammation of the superjacent mucous membrane. In such cases it is also frequently observed that a slight and transient inflammation may be manifested in the mucous membrane at some considerable time (a day or two) after the commencement of convalescence from the

rheumatic attack. In like manner severe pain and disordered secretion may exist in the gastro-intestinal canal when no other symptom of inflammation can be demonstrated; and only after a protracted period of disorder do such symptoms sometimes make their appearance.

Chemical examination of the contents of the stomach indicates considerable variation in the quality of the gastric juice when a patient suffers from disorders of digestion. Dyspepsias have been therefore subjected to a chemical classification, in which the relative variations of hydro-chloric acid play an important part. But in many instances, the clinical observers discover evidences of disordered digestion without any notable variation from the normal quantity of organic or mineral acid that should be present in the gastric juice. In other cases there is an excess of hydro-chloric acid; while in a third class, even though there be present an excessive quantity of organic acids in the contents of the stomach, the gastric juice is deficient in hydro-chloric acid. It will be convenient to consider these three classes in succession.

(1) SIMPLE NERVOUS DYSPEPSIA.—This form of dyspepsia is encountered among neuropathic subjects, and among members of the great arthritic family. These patients are predisposed to gout or to rheumatism, diabetes, polyuria, asthma, palpitation and irregularity of the heart, varicose veins, haemorrhoids, gall stones, gravel, premature baldness, whitening of the hair, dandruff, eczema, and neuralgia. Nervous dyspepsia frequently is associated with, or replaces the manifestations of muscular and nervous rheumatism. The dyspepsia that is thus inaugurated is one of the most common causes of neurasthenia.

The amount of free hydro-chloric acid in the gastric juice

may be either normal or somewhat reduced in quantity without considerably affecting the nutrition of the patient, provided that intestinal digestion continue intact. Under such circumstances mere chemical examination of the gastric juice can afford very little information regarding the ultimate result of the digestive process. Of far greater importance is the condition of the nervous system, and the degree of perfection with which intestinal digestion is accomplished. So long as dilatation of the stomach does not exist there will be no unusual delay in the passage of food to the intestine, there will be no fermentation, and no special failure of health, even though the amount of free hydro-chloric acid in the gastric juice fall considerably lower than the normal standard.

In this form of dyspepsia the general appearance of the patient exhibits little change. There is usually complaint of epigastric uneasiness after eating, accompanied by a sense of distension in the stomach, and by frequent eructations of tasteless and odorless gas. Sometimes there is a feeling of difficulty in the act of respiration; the head aches; the countenance is flushed; the bowels are constipated, and haemorrhoids are often developed. Considerable pain is frequently experienced shortly after eating; it is a dull, vague distress that is not definitely located, but is experienced with varying severity in an ill-defined region beneath the diaphragm. Sometimes the patient experiences vertigo and sensations of constriction about the cranium; occasionally the temporal arteries beat violently, and the corresponding veins become distended with blood. In some instances it becomes impossible to lean forward without severe pain in one or both sides of the head. Sometimes there is a feeling of weight, or pressure in the occipital region; and

it is not an uncommon thing to hear a cracking sound in the articulations of the neck when the head is rotated upon the axis. Accompanying these symptoms there is usually great depression of spirits, and the patient is tormented by a fear of impending evil. Such patients not unfrequently exhibit great instability of feeling, and rapidly pass from an extreme of exaltation to the profoundest depths of depression.

Examination of the abdomen an hour or two after meals discovers considerable gastro-intestinal distension with gas. Sometimes a succussion note is audible in the stomach, if the body be violently shaken. The distinction between distension of the stomach thus produced and genuine dilatation of that organ can be made apparent by abdominal percussion in the morning before breakfast, at which time in simple distension succussion sounds are absent, whereas they can be always demonstrated in cases of persistent dilatation.

Palpation of the abdominal walls seldom indicates any extensive tenderness or special uneasiness under pressure. A moderate degree of tenderness can be frequently detected just below the point of the ensiform cartilage, and in rheumatic subjects the upper third of the recti muscles is often sensitive under manipulation.

The disturbances of digestion are not limited to the stomach alone; they also involve the intestinal tube. In many cases there is considerable distension of the colon; constipation and haemorrhoidal difficulties afford evidence of intestinal and hepatic disorder. Occasionally the symptoms of pseudo-membranous enteritis are developed.

(2) NERVOUS DYSPEPSIA WITH EXCESS OF HYDROCHLORIC ACID. In certain cases of nervous dyspepsia there is an exaggerated secretion of hydro-chloric acid. This condition is not uncommon in gastric neurasthenia. The excess of acid that

is thus produced as a consequence of nervous dyspepsia sometimes becomes a veritable cause of inflammation. Such excessive secretion is not uncommon during the paroxysms of vomiting that sometimes occur during the course of *tabes dorsalis*.

In typical cases of nervous dyspepsia accompanied by excessive secretion of hydro-chloric acid there is great pain, which commences two or three hours after eating, and is located in the epigastric region. This pain is greatly relieved by swallowing a liquid, such as milk, or an aqueous solution of an alkaline salt. It is arrested by the following meal, but begins again a few hours after the repast. In this way the latter part of the night is frequently filled with distress between the hours of two and five o'clock in the morning; sleep is rendered impossible by burning pain or by vague sensations of uneasiness in the epigastrium, sometimes irradiating into the interscapular space. In severe cases vomiting may occur; the patient sometimes provokes this act in order to relieve the distress that is caused by the accumulation of acid liquids in the stomach. Irrigation with the gastric catheter affords great relief, and is willingly practiced by the experienced sufferer. In many cases there is eructation of the acid contents of the stomach, causing intense pain and burning sensations in the oesophagus and fauces. Such patients experience considerable thirst; their appetite is usually excellent, and frequently exhibits an eager craving quality rendering it necessary to take food more frequently than in health; they instinctively prefer animal food because it is digested more easily than a vegetable diet. There is usually considerable loss of flesh; the skin assumes an earthy hue, and nervous exhaustion is indicated by irritability, fatigue, restlessness, and inability to sleep. Many of these sufferers are exceedingly hypochondriacal and despondent.

The milder forms of the disease are characterized by less experience of pain. There is merely a sensation of epigastric uneasiness three or four hours after a meal; and complete relief is afforded by the following repast. These patients require food at short intervals, and if the usual meal time is passed without food there is a feeling of exhaustion and distress at the pit of the stomach, a throbbing head-ache, and vertigo. These patients are frequently rheumatic, nervous, irritable, and neuralgic. The bowels are usually constipated, though sometimes there is diarrhoea, especially during the night or early in the morning. Sometimes there is complaint of weight and distension in the region of the stomach; tenderness on pressure is experienced over the pyloric orifice, and distension of the stomach can be generally determined by percussion over the organ. When actual dilatation has occurred a succussion sound can be obtained in the morning before food has been taken. If the stomach be evacuated by aid of the gastric catheter the liquid that is thus obtained is strongly acid, ropy, and of a yellowish color. The fact of excessive secretion of hydro-chloric acid may be conclusively demonstrated by washing out the stomach at bed time and on the following morning removing the liquid contents of the viscus before food has been taken. If hydro-chloric acid be present, there is hyper-secretion and gastric dilatation.

In certain cases accompanied by excessive secretion of hydrochloric acid the patient is tormented by repeated paroxysms of vomiting which may continue for several days at a time. Such attacks are frequently experienced after intellectual fatigue, and are an expression of nervous disorder that is accompanied by head-ache, pain in the stomach, and nausea; symptoms that are relieved by vomiting the excessively acid contents of the stomach, or by their neutralization with an alkaline solution.

(3) NERVOUS DYSPEPSIA WITH DIMINISHED SECRETION OF HYDROCHLORIC ACID—In the third form of nervous dyspepsia the amount of hydrochloric acid, both free and combined, is reduced; but as a consequence of fermentation the contents of the stomach become charged with organic acids, and are exceedingly acrid. Such cases are accompanied by pain in the epigastrium, distressing pyrosis, loss of appetite, and frequent vomiting. The stomach is distended, and succussion sounds are distinctly audible, painful sensations declare themselves soon after eating, but are usually less intense than the pain that is experienced in consequence of excessive secretion of hydro-chloric acid. There is progressive loss of flesh, and the skin acquires a cachectic hue that sometimes suggests the idea of cancer of the stomach. In certain cases there is regurgitation of bile into the stomach, which hinders gastric digestion and adds to the discomfort of the patient.

It is evident that an accurate determination of these different forms of dyspepsia can only be effected by the aid of chemical analysis. The presence or absence of free hydrochloric acid can be readily determined by the ordinary color tests, but these are insufficient for an accurate diagnosis, which can only be established by a quantitative analysis. The prognosis depends largely upon the intensity of the symptoms and upon their duration. Mild and recent cases of a simple type usually recover, but dilatation of the stomach and the excessive secretion of hydro-chloric acid are less favorable symptoms. In the severer forms of hyper-secretion there is reason to fear the establishment of actual inflammation, ulceration, or malignant disease.

The indications for treatment are three-fold. (1) To relieve pain, (2) to correct nervo-muscular disorder, and (3) to rectify the quality of the secretions.

(1). Sensations of weight and distension may be frequently relieved by the administration of milk, small quantities of food, or water containing bicarbonate of sodium. When, however, pain assumes the character of intense neuralgia, hypodermic injections of morphine and atropia become necessary. Moderate degrees of pain may be relieved by the administration of Hoffmann's anodyne, cannabis indica, cocaine, hyoscyamus, and the saturated aqueous solution of chloroform. Of these remedies Hoffmann's anodyne is inferior to chloroform. Cocaine should be used with great caution, in doses not exceeding half a grain. The extract of cannabis indica may be used in the same proportions. In many instances great relief is obtained from copious draughts of hot water; the methods of hydropathy are very serviceable in building up the general nervous system and in overcoming the neurasthenia that accompanies the disease. Cold sponge baths, shower baths followed by active friction of the skin, and frequent exercise in the open air, are essential elements in the treatment of nervous disorder.

(2). Inefficient muscular contraction in the walls of the gastro-intestinal canal requires the use of nux vomica, ipecac, massage, electricity, injections of hot water, and stimulant laxatives. Nux vomica should be given in doses of five to ten drops of the tincture, a quarter of a grain of the extract, or a half a grain of the powdered nut, shortly after eating. Ipecac is especially useful when there is tympanitic distension of the abdomen after meals; it should be given in doses of one-tenth of a grain, and it may be associated with nux vomica, and with other gastro-intestinal stimulants, as in the well-known pill recommended by Fothergill, which may be modified thus:

℞ Pulv. Ipecac.....gr. $\frac{1}{10}$
Ext. Nuc. Vom.....gr. $\frac{1}{4}$
Pulv. Piper. Nig.....gr. j
Ext. Gentiangr. j

M

Sig. One such pill after each meal.

Aloin in sufficient doses may be added when there is constipation, and an occasional dose of blue mass and colocynth affords great relief.

(3) Chemical rectification of the secretions requires, when there is excessive production of hydro-chloric acid, abstinence from alcoholic drinks and highly seasoned food. Mastication must be slowly and thoroughly performed. Milk diet is often very successful. When the excess of hydro-chloric acid is present during the period of digestion alone, bicarbonate of sodium may be given in doses of five to twenty grains about three hours after each meal, at the time when pain begins to manifest itself. When, however, the gastric contents are continually charged with an excess of hydro-chloric acid, it becomes necessary to give the bicarbonate of sodium to the amount of four or six drachms per diem. Vichy water, lime water, calcined magnesia, and Murray's fluid magnesia may be used for this purpose. When there is evident dilatation of the stomach with stagnation of its contents, the stomach pump or the gastric sound should be employed, in order to remove the irritating liquids. In default of such apparatus great relief can be obtained from an emetic of lobelia. Starchy and saccharine food should not be eaten: the patient should be nourished with milk, eggs, peptonized meat powders, and other nitrogenous articles of diet.

When there is a deficiency of hydro-chloric acid in the gastric juice, without dilatation or stagnation, hydro-chloric acid should be given after each meal; ten or fifteen drops of the dilute acid may be given in a glass of hot water after eating. The other mineral acids produce a similar good result. The extensive popularity of Horsford's Acid Phosphate is largely due to the action of its acid constituent. It must be understood, however, that the administration of acids is merely palliative, and not curative of dyspepsia. The same thing is true of pepsin and other digestive ferments. The disease can only be overcome by the removal of its cause, that is, by the correction of the nervous disorder upon which it is dependent. In many instances great benefit is obtained from the long continued administration of small doses of the alkaline salts with gastric tonics before each meal. The ordinary neutralizing cordial, or the compound syrup of rhubarb and potassium, may be thus employed with great advantage.

Dilatation of the stomach and excessive acidity of its contents, by reason of fermentation and the presence of organic acids, must be combatted by daily irrigation of the stomach, and by the administration of salol, salicylic acid, boric acid, or beta-naphtol. Electricity, massage, and hydrotherapy are also indicated in this class of cases. Change of air, long vacations among the mountains, and sea-bathing are often more effectual than the most elaborate medication.

TRANSLATORS.

ITALIAN.

H. M. BANNISTER, M. D., HAMPTON, CONN.

GERMAN.

G. J. KAUMHEIMER, M. D., MILWAUKEE, WIS.

H. M. BANNISTER, M. D., HAMPTON, CONN.

JOS. KAHN, M. D., MILWAUKEE, WIS.

DUTCH.

WILLIAM SWEEMER, M. D., MILWAUKEE, WIS.

FRENCH.

J. G. KIERNAN, M. D., CHICAGO, ILL.

SPANISH.

H. M. BROWN, M. D., MILWAUKEE, WIS.

SWEDISH, DANISH AND NORWEGIAN.

HALDOR SNEVE, M. D., MINNEAPOLIS, MINN.

NEUROLOGICAL.

ANATOMY AND PHYSIOLOGY.

THE PITUITARY GLAND.—Vassale and Sacchi, (*Rev. Sperimentale* XVIII, III and IV, Dec. 1892,) publish the account of their experimental investigation in regard to the effects of the destruction of the pituitary body from which they deduce the following conclusions: (1.) By our method of operating it is practicable to destroy, in the cat and dog, the pituitary gland with ease and precision. (2.) The complete destruction of the pituitary gland is fatal in the cat and dog, independent of all operative complications. (3.) Partial destruction of the hypophysis is compatible with continuation of life for a long period in these animals, but with the typical symptoms of functional insufficiency of the gland. We are not able in the present state of our researches to decide whether these phenomena of insufficiency may not, at a period more or less remote from the operation, give rise to a genuine fatal cachexia; or whether, on the other hand, they may not diminish and disappear so that the injured gland resumes its functions in consequence of a process of partial regeneration, of which we have been able to observe evidences in one of our cases. (exp. 26). (4.) Increase of the chromophile cells in the pituitary gland is evidence of a degenerative process, rather than of a compensatory functional process of the same. (5.) Although the symptom-complex that follows complete destruction of the pituitary gland offers analogies to that which follows extirpation of the thyroid gland, we are unable, for the reasons given, to admit that the functional relations between these two bodies are such that one may, as Rogowitsch claims, be a substitute for the other in the needs of the animal economy. (6.) As regards its functions, the hypophysis belongs to the class of glands, destruction of which gives rise to the formation and accumulation within the organism of special toxic substances.

THE FINER STRUCTURE OF THE SPINAL CORD IN MAN.—G. Mingazzini, (*Revista Sperimentale*, XVIII, III and IV.) reports the results of the examination of over one thousand sections of the spinal cord in a case of amyotrophic lateral sclerosis, prepared according to the newer method of Golgi, which he discusses in comparison with the data previously obtained. The atrophy of the muscles in the patient, two months before death, involved more or less completely the arms, legs, back and face, and to a considerable extent those of the neck. The abdominal muscles and diaphragm were uninvolved and the sphincters functioned normally. The knee reflex was exaggerated, foot clonus present, cutaneous reflexes normal, there was exaggerated fibrillary excitability in the muscles that were intact. Pupillary reactions normal, special senses generally intact except hearing which was slightly impaired. Speech slightly impaired as to the pronunciation of guttural and dental sounds, deglutition difficult. Temperature slightly elevated, pulse 96, small. Examination of sections of the lower lumbar cord, revealed complete degeneration on both sides of a triangular space corresponding to the crossed pyramidal bundles, while the other regions were intact. In the middle and upper portions of the lumbar regions, the same tract was involved and the anterior horns were in part affected, many of their cells lacking, others without their prolongations, and still others shrunken. With carmine coloring they were of a uniform clear rosy tint, the nucleus undistinguishable. The nervous network of the gray substance, as compared with the normal condition seemed rather less rich in the fibres that ordinarily are found around the antero-lateral group of the cells of the anterior horn. In the dorsal segment of the cord, the same degeneration of the pyramidal bundles was observed; the cells of Clark's columns and those of the posterior horns and the posterior root fibres were intact, while the anterior horns were notably and uniformly diminished in sections on both sides. In the anterior horns the nervous network was apparently destroyed, the cells reduced to a very few, and those remaining reduced in size and with undistinguishable nuclei; the anterior root fibres partially atrophied. In the cervical cord the same degeneration of the pyramidal fibres was observed. In the middle of the fundamental fibres of the anterior and the lateral columns there were vacant spaces corresponding to those occupied by the anterior radicular

fibres; these bundles showed in some points an incipient but very limited rarefaction. The size of the anterior horns was very much reduced and all the cells in the median, ventro-lateral, and postero-lateral groups had disappeared. In the whole field of the anterior horn (except in its median portion) and also in the lateral horn, the fibres of the nervous network were completely gone, so that this part appeared structureless; only short fibres interwoven into a very loose network occupied the median portion of the anterior horn. Some fibres of the anterior commissure had disappeared, and comparing this commissure with that of the normal adult at the same altitude, it was observed that the fibres that bend ventrally along the median margin of the anterior horn, are preserved only in part. Nevertheless it was possible to distinguish fairly well two orders of fibres; the ones forming a very minute fascicle (ventral portion) bending toward the anterior horn and there becoming lost, or penetrating the fundamental bundle; the others forming a thicker bundle (dorsal portion) turning dorsally and in some preparations distinctly visible in their continuation with fasciculi belonging to the median bundle of the posterior radicular fibres. From the bundles appertaining to the remainder of the lateral column were seen to proceed a compact fascicle of fibres, which, traversing the clear field of the base of the anterior horn, continued in the direction of the fibres of the anterior commissure. The course of the posterior radicular fibres could be followed with sufficient exactness, the lateral bundles could be seen to lose themselves in the network of fibres behind the anterior portion of the gelatinous substance; from this network proceed very minute fibres which thinning out pass toward the base or toward the center of the anterior horn where they were lost to view. Both the network and the fine fibres originating from it can be traced across the median bundle of the posterior root fibres, which pass obliquely outward in a lateral direction and there thinning out lose themselves, like the others, in the base of the anterior horn. In some well stained sections the terminal ramifications could be seen pushing further toward the lateral part of the cornua. In some sections it was observed that the more ventral fibres of the median bundles bend inward and pass on with the more dorsal fibres of the anterior commissure. In the discussion of the observations above described the author reviews the literature of the theories of the connection

between the anterior roots and the pyramidal tracts, that is the connections of the cerebro-spinal and spino-muscular systems. Since the discovery by Golgi of the presence of collateral fibres from the anterior and lateral columns to the network in the gray substance and of fibres from the cells of the anterior horns to the same, it has been admitted hypothetically that the connection between the great multipolar cells of the anterior cornua and the pyramidal fibres is effected by these. Mingazzini believes that his observations, while not affording an exact anatomical demonstration of this connection, yet go far to show in what portion of the nervous network it is effected. The gradual disappearance from below upward of the nervous network and the cells of the anterior horns, together with the complete degeneration of the pyramidal columns, indicate that the same morbid process must affect them both, and presumably the columns first. The network of the anterior horn cannot, according to the data of histology, be considered as formed by the terminal ramifications of the collateral fibres of the pyramidal columns, and since these ramifications appertain to the distal portion of the cerebro-spinal system, while the cells of the anterior horns belong to the spino-muscular, the affirmation is justified that the nervous network of the anterior (and lateral) cornua represents almost in total (except in its more central portion) the intermediary system between these two systems. The view of Gowers that the degenerative process simultaneously affects both in amyotrophic lateral sclerosis is not supported by the fact of the progressive disappearance of the cells while the lateral columns are degenerated throughout, as is here pointed out. The functions of the different groups of the cells of the anterior cornua, especially the postero-lateral group are discussed at length and the literature of the subject is gone over quite fully. Mingazzini adopts in the main the view expressed by Kölliker and Ramon y Cajal, who explain spinal reflex action by the intervention of the antero-posterior or sensori-motor collateral fibres discovered by them, and also adopts with slight modification the *schema* of Waldeyer, by which this mechanism is explained. The bearings of his investigations on the question of the structure of the anterior commissure is also discussed and his conclusions in regard to the whole are summed up as follows: (1.) That the nervous network (intreccia) of the anterior horn (except in

its median portion) is formed almost entirely from the terminal fibrils (collaterals from the pyramidal bundles,) that maintain in relation the cerebro-spinal with the musculo-spinal segments of the pyramidal route. (2.) That all the groups of cells of the anterior (and lateral) horn have motor functions; but the medial and ventro-lateral groups are in direct relation only with the collaterals from the pyramidal fibres, while the postero-lateral group is in relation not only with these, but also with the terminal extremities of the sensory collaterals from the posterior radicular fibres which push with their terminal extremities as far as the base of the anterior horn. (3.) That the anterior commissure is formed of two parts; a dorsal portion formed by the crossing of a part of the posterior radicular fibres, and a ventral portion formed in part, at least, by the prolongations of the cells of the anterior horns and of the anterior radicular fibres.

H. M. BANNISTER.

THE FUNCTION OF THE THYROID GLAND.—Dr. J. L. Gibson read a paper upon this subject before the Third Intercolonial Medical Congress of Australia. From experiments upon dogs he concludes that the thyroid possesses no blood-forming properties, but was unable to disprove its alleged function as compensatory to the spleen. Dogs living long enough after excision of the thyroid become anæmic for the reason that the absence of this gland has a serious effect upon the nervous system. It probably secretes some material necessary for the nourishment of the nervous system. Dr. Gibson transplanted thyroid of a lamb into abdomen of a child of six years in whom he considered the gland to be functionally absent. Improvement of mental state noticed day after operation. July 27—nine days after grafting, noted he looked much brighter. July 31—Œdema much less; extremities warm; skin had lost former glazed appearance. Aug. 2—Mother considers him thinner than ever before. Aug. 5—Makes sounds as though trying to talk. Nov. 12—Œdema disappeared, although feet, lips and hands still rather thick. Skin natural and all symptoms improved. May, '93—Improvement having ceased second grafting was made in abdomen. Sept. 4—Appears now like a well nourished child between two and three years of age. Myxœdema cured and cretinism lessened. (*The Lancet*, Jan. 14.)

POSITION AND THE CEREBRAL FUNCTIONS.—Dr. J. Sicard (*Gaz. des Hop.* Dec. 22, 1892) starting from the premise that continuity of blood irrigation is a necessity for regular work by the cerebral cells, analyzes the influence of horizontal and vertical positions on cerebral functions. The horizontal position favors the mechanical blood afflux toward the brain while the vertical has the opposite effect. He points out that the pressure exercised on the vessels at the base by the cerebral mass varies with the position. Vertigo, he points out, is the result of circulatory modifications in the interior of the brain which may result either from anæmia or hyperæmia. These two types are oppositely affected by position; verticality improves one while the reverse occurs in the vertical position with the other. He points out that on rising melancholies are often worse. The reverse is the case with mania.

J. G. KIERNAN.

SUPRARENAL CAPSULES AND MUSCULAR WORK.—Dr. J. E. Abelson and P. Langlois state (*Arch. de Phys.*, July, 1892) that the toxicity of the blood of guinea-pigs deprived of the supra-renal bodies indicates that there accumulates in the organism under such circumstances one or more toxic substances. These act particularly on the motor nerve ends in the muscles. Injection of an aqueous extract of the suprarenal bodies seems to modify favorably the symptoms produced by the absence of that body. In their opinion the suprarenal bodies fabricate substances which neutralize or destroy poisons fabricated in the course of muscular work.

J. G. KIERNAN.

FUNDAMENTAL COLORS.—Dr. Chauveau concludes (*Mercure Med.*, Dec. 7, 1892) that green by direct demonstration and red and violet by circumstantial evidence seem to have the right to the designation of fundamental colors attributed to them by Young. In the nerve centres for the perception of these colors are cells distinct or endowed with special sensibilities to red, green or violet. These are not equally or simultaneously roused into activity. Green is the first to awaken. A man sleeping near a window permitting sunlight to reach both eyes about equally well, when his eyelids are raised, see white objects in a fugitive but vivid green illumination. The normal eye hence has the power of analyzing white light and decomposing it into its fundamental colors.

J. G. KIERNAN.

LITERATURE AND PRIMEVAL MAN — Letourneau, (*Rev. Mens. de l'Ecole del'Anthropologie de Paris*, Nov., 1892.) states that man of every race in every age has found need of æsthetic expression; this being an essential of human nature. This need, the primordial factor of literature, clothes itself progressively in diverse forms. Primitive literature, everywhere the same, has probably preceded the invention of articulate language since the anthropoid, like other animals, possess a vocal language constituted by modulated cries resultant on simple reflex actions. Song has constituted everywhere the principal element of primitive æsthetics. Mimicry, which everywhere accompanies song, is another. Literary æsthetics of all primitive peoples are founded in an indissoluble trinity, mimicry, music and poetry. This last at first is a simple accessory of song. From the liking of primitive man for vocal music with its rhythmic measured sound is born metre which is perfected co-relatively with cerebral development and instrumental music parallel develops. With the development of individual property, of marriage, of social relations, are born ideas and new sentiment, which, developing, strive to secure expression and new poetic forms are engendered and also successively new literary forms. Literature very narrowly depends on the social state. It is both an effect and, by its expansion, a cause. In epochs of moral involution (or degeneracy) literature loses its nobility, force and æsthetic beauty. A sign of decadence literature is abuse of descriptive power. It evinces exhaustion of ideation or interdiction of its expression.

J. G. KIERNAN.

PATHOLOGY AND SYMPTOMATOLOGY.

TUMOR OF THE BRAIN.—The following cases came under the care of Dr. Simpson: Case 1.—Female, age 66. For four years suffered from increasing paresis of both legs; increase in tendon reflex; deaf in right ear for same length of time, partially deaf in left. Double optic neuritis. Had severe headaches, nausea and vomiting and attacks of dizziness. Sank into comatose condition some days before death. Post mortem showed large tumor occupying upper and posterior portion of temporo-sphenoidal convolutions from fissure of Sylvius to sulcus between second and third convolutions. Carcinomatous nature; sprang from dura

mater of temporal bone. Case 2.—Man, aged 18. Admitted to hospital Nov. 2, 1891, died June 21, 1892. Patient was in hospital eight months before and had pain and swelling in right hip for three months and pain in right knee. On admission, fullness over right hip joint, great pain on attempted movement. Thigh was kept rigid and there was tenderness over the anterior part. Leg and thigh put in extension apparatus. March 2nd, condition as follows: "Tubular breathing over upper part of front of left lung and dullness of the left base behind; caries of the fifth right rib; abscesses over front of right femur, left elbow joint and over third right rib." May 10th, complete left facial palsy, diplopia on looking to left, paralysis of left external rectus, double optic neuritis; urine contained one fourth albumen. Frequent headaches. Anæsthesia of cornea and left side of face. June 19th, unable to retain any food. Post-mortem showed tumor about size of filbert in left side of pons Varolii, pressing on floor of left ventricle especially on roots of third, fourth, fifth, sixth and seventh nerves. On being cut into was found to be commencing to caseate in center. (*Lancet*, March 25, 1892.)

B. M. CAPLES.

CASE OF CYSTIC TUMOR OF THE BRAIN.—At the meeting of the N. Y. Neurological Society Jan. 3, Dr. Leo Steigler showed a woman, twenty-five years of age. Married six months previous to appearance of symptoms, October 1891. No hereditary taint, history of syphilis or traumatism. Was suddenly seized with twitchings of thumb and forefinger of right hand. Twitchings led in a few moments to loss of consciousness, cyanosis, frothing at mouth, and tonic and clonic convulsions. Similar attack occurred seven weeks later followed by a number of others. No trace of headache, nausea, giddiness, etc., still suspicion of a localized cerebral lesion was aroused. Operated upon by Dr. Gerster, June, 1892. Dura bulged slightly into opening and an area the size of half a dollar, corresponding with centre for movement of fingers, showed a yellowish tinge. No apparent change in cortex of brain, but upon incision an ounce of yellow serous fluid escaped. Walls of cyst were smooth and owing to the delicacy of the membrane could not be removed. Small layer of gray matter excised. By November patient had lost sensation of position in third and fourth fingers, but strength of hand and arm had

increased. December 10, considerable twitching in arm and face. Patient had been kept on daily doses of 15 to 30 grains potassium bromide since operation. Dr. Steigler thought glioma cause of trouble and there was reason to fear further growth of gliomatous material presumably left in walls of cyst. Advised operations removing entire cyst. Dr. Starr doubted if removal of walls were possible; furthermore, there was probably infiltration of brain substance. Out of 87 recorded operations for removal of brain tumors 46 per cent. ended in recovery. (*New York Med. Jour.*, Jan. 28.)

APOPLECTIFORM SYMPTOMS IN CEREBRAL TUMORS.—It is well known that cerebral tumors may simulate almost any other form of cerebral disease. Apoplectiform attacks are however, very rare and are usually the result of hemorrhages caused by the tumor. Kuttner reports two cases from Ewald's practice, which presented the clinical picture of an apoplexy during life and in which no trace of hemorrhage recent or remote could be found. In case 1, a man of 33, who survived the attack a month, a cystic glioma was found occupying almost the whole of the right occipital lobe. Case 2 was a woman of 38, who survived 13 days. A metastatic carcinoma as large as a pigeon's egg, surrounded by an extensive area of softening was found in the left temporal lobe. This was secondary to a carcinoma of the right lung. Ladame has found such a course 11 times and in 10 cases softening had occurred around the tumor. The clinical diagnosis is usually impossible in such cases.—(*Zur Casuistik der Hirntumoren*, Dr. Kuttner, *Berl. Klin. Wochensch.*, No. 27, 1892.)

G. J. KAUMHEIMER.

SYMPTOMATOLOGY OF TUMORS OF THE CORPORA QUADRIGEMINA.—The symptoms which are of diagnostic value in tumors of the corpora quadrigemina are the ocular paralysis and the disturbances of equilibrium. The ocular palsies are generally due to lesion of the nuclei and are consequently dissociated. Paralysis of the abducens seems to be of quite constant occurrence, usually appears early and may remain unilateral. The oculomotor paralysis is usually bilateral, although it may not be symmetrical. The abducens paralysis is usually due to pressure upon the trunk of the nerve. The disturbances of equilibrium may assume the

form of cerebellar or of ordinary ataxia and may be accompanied by severe vertigo, although it is of equal diagnostic value with the ocular palsies. Neither of these are "direct" symptoms, as they are absent in cases of softening. The ataxia is probably due to pressure upon the cerebellar peduncle. Most modern authors agree that there are no direct symptoms indicating lesion of these bodies. (Prof. Lichtheim, *Deutsch. Med. Wochens.*, No. 46, 1892.)

G. J. KAUMHEIMER.

CEREBELLAR TUMORS AND THE KNEE-JERK.—Dr. Handford reports in *Brain* a case of some interest. The patient was a lad of 16 whose first symptom was apparently causeless vomiting. He subsequently suffered from headache and dizziness, with difficulty and unsteadiness in walking. When he came under observation he had an ataxic gait and was subject to occasional fits, apparently of opisthotonic character. He also was found to have optic neuritis in both eyes, and he subsequently had some weakness of the ocular muscles and nystagmus. Knee-jerks absent on both sides; ankle clonus present on both sides. Became progressively worse. Died six months after onset of symptoms. Tumor found in middle lobe of cerebellum. Dr. Handford refers especially to the absence of the knee-jerks. He states the different views which are held with reference to the production of the so-called tendon reaction and especially refers to the well-known views of Dr. Hughlings Jackson and Dr. Charlton Bastian with regard to the cerebellar influence. Dr. Bastian related the facts of several cases of total transverse lesion of the spinal cord, in which, in spite of marked sclerosis in the pyramidal tracts found post mortem, the knee-jerks remained absent, a condition which was referred to the cutting off of the cerebellar influence—the influence which, according to Dr. Jackson's views, is responsible for the maintenance of muscular tone and the presence of tendon reactions. Dr. Handford regards his case as having almost the value of an experiment in showing the connection of the knee-jerks and the cerebellum, and says further that, according to widely accepted views, the pressure of the tumor on the medulla should have produced descending sclerosis of the crossed pyramidal tract and exaggerated knee-jerks. Dr. Gowers states that in many cases of cerebellar tumor the knee-jerk cannot be obtained, and that in the same case it is at times present,

at other times cannot be elicited. This fact may give a certain amount of support to Dr. Jackson's theory. The facts of Dr. Handford's case suggest this variability in tendon reactions, as on one occasion ankle clonus was elicited. This is a curious and interesting fact, for it must be very rare to find ankle clonus present, (a phenomenon which can usually only be evoked in an exaggerated state of the conditions on which the knee-jerk is supposed to depend) whilst the knee-jerk itself remains absent. The case is one of unusual interest and suggestiveness, but observers will probably not agree as to the interpretation of its phenomena. (*Lancet*, Feb. 11, 1893.)

B. M. CAPLES.

THE OTIC SIGN IN CEREBRAL DISEASES.—Gellé (*Ann. des maladies de l'oreille et du larynx*, May, 1892.) considers that clinical observation shows the importance of recognizing the presence or disappearance of this functional sign, known as the binaural reflex of accommodation, whether there is deafness or not in diseases of the middle ear, in those of the internal ear, or in intracranial diseases, which produce vertigo, tinnitus aurium, deafness, facial paralysis, etc. The absence of transition of the synergetic irritation in cases of sclerosis is a mechanical fact, which explains the simultaneous loss of the effect of centripetal impressions of the tuning fork on the hearing, added to other signs of the presence of otitis media. When a haemorrhage or an inflammation has seriously altered the labyrinthine contents, the reflex of synergetic accommodation is equally wanting. It is gone from both sides, and coincides with a limited deafness and with various disturbances of equilibrium and of the senses, which constitute the syndrome of labyrinthine lesions. (*N. Y. Med. Jour.*, Jan. 21, 1893.)

THE SO-CALLED BEZOLD VARIETY OF MASTOIDITIS; OPENING OF THE MASTOID; CRANIOTOMY; DEATH; AUTOPSY; ABSCESSES IN THE TEMPORAL LOBE AND CEREBELLUM; SINUS THROMBOSIS ON THE OTHER SIDE.—Knapp (*Arch. of Otol.*, XXI, 3.) reports a case occurring in a young woman who suffered from repeated attacks of naso-pharyngeal catarrh, extending into both ears, for about a year. The left ear recovered. The fourth and later attacks showed implication of the right mastoid, with marked meningitic irritation. The upper part of the sternocleido-mastoid muscle became red, swollen, and

painful. Ten days after her confinement a deep incision was made into the swollen head of the muscle, liberating a quantity of pus. The relief being only temporary, the mastoid was opened from base to tip, and the wound kept open by a perforated silver tube. The patient felt relieved and comparatively well for two weeks. Then symptoms of cerebral irritation returned and lasted until her death, three months later. These symptoms were persistent headache, nausea, occasional vomiting, dizziness, stupor, impairment of speech, loss of appetite and constipation. The pulse at first varied from 70 to 88, later sank to 60. The temperature varied between 98.4° and 100° . There were no convulsions, delirium, chills, or abnormal sensation. The ear never gave her any more trouble, and there was never any discharge from the canal, though the drumhead was red and bulging. Two months before death a swelling was noticed below the head of the sterno-mastoid muscle on the other side. The left ear remained healthy. Optic neuritis developed in both eyes during the last months of life. Craniotomy was done the day before she died. The opening in the mastoid was enlarged and extended into the cranial cavity. The dura mater and lateral sinus were found healthy. Then the wound was extended into the tympanic attic, but no pus being found here and the bone being thick and hard, the middle cranial fossa was opened through the squamous portion of the temporal, just above the auditory canal. There was no extradural suppuration, and the dura mater and superficial layers of the brain were healthy. She lived about an hour after the operation. The autopsy showed: 1. Perforation in the medial bony surface of the tip of the mastoid. 2. The upper part of the drum filled with granulation tissue. 3. The right lateral sinus healthy. 4. The dura healthy throughout. 5. The pia mater of right temporal lobe and right cerebellar hemisphere milky and its small veins filled with pus. 6. The sinuses in the median line, those adjacent to the median line on the right side, and all the sinuses on the left side, and the left internal jugular vein, were filled with pus. 7. In the right temporal lobe an abscess as large as a walnut, and in the right cerebellar hemisphere another of the same size. 8. Microscopic specimens and cultivations from the cranial abscesses showed small bacilli and the staphylococcus aureus. (*N. Y. Med. Jour.*, Jan. 21, 1893.)

GLYCOSURIA FOLLOWING APOPLEXY.—In a paper published in *Prag. Med. Wochensch.*, (Nos. 31 to 33, 1892,) v. Jaksch states that although transitory glycosuria has been reported after apoplexy, he has not been able to find a case among 50 cases of fresh apoplexies within the two years preceding and seems to doubt the causative relationship. This has called out several replies. Dr. Emil Schulz (*Ueber d. Vorkommen transitorischer Glycosurie nach apoplectischem Insult, Prag. Med. Wochensch.*, No. 50, 1892) relates a case in which glycosuria occurred after two separate apoplectic attacks, lasting six days after the first and three days after the second attack. From a study of the accessible literature, S. concludes that glycosuria results only when the fourth ventricle is involved by the lesion. Dr. M. Loeb (*Glycosurie bei Gehirnapoplexie, ibid*) also gives two instances from his own practice and a number from literature and presents the following conclusions: 1. In some, mostly fatal cases of cerebral apoplexy (cerebral and meningeal hæmorrhage) sugar can be found in the urine. 2. The excretion of sugar rarely continues longer than 12 to 24 hours and usually takes place only during the coma. 3. The percentage of sugar varies from one-fifth per cent. to several per cent. 4. Albuminuria, which always lasts longer than the glycosuria, is frequently present.

G. J. KAUMHEIMER.

A CASE OF DIABETIC HEMIPLEGIA AND APHASIA.—The connection between diabetes and nervous symptoms has long been known. On the one hand, diabetes is often of nervous origin. Tumors, cysticerci or sclerotic processes in the brain may cause it. It has been observed in tabes, following apoplectic and epileptic attacks and after traumatism. On the other hand, nervous symptoms are not rare in diabetes not of nervous origin. Various disturbances of sensation, anæsthesia, paræsthesia, neuralgia, and neuritis with impairment of both motor and sensory functions have been found as well as psychological depression and general weakness. Absence of the patellar reflex has been noticed very frequently, and has been variously attributed to neuritis and to functional disturbances of toxic origin. In the motor sphere we may find symptoms of irritation, epileptiform convulsions and paralysis of single muscles and members, of central origin. Hemiplegia and apoplectic attacks have also been observed, though less often.

The causes of these latter are various. Occasionally there is simply a coincidence, and at other times the apoplexy may be due to diseased arteries caused by the diabetes or to the influence of the toxic substances circulating in the blood. The author reports the case of a heretofore healthy laborer who had worked in a chemical factory and handled a great deal of aniline dye. Six weeks before admission to the hospital he complained of frequent nausea and weakness, in spite of an inordinate appetite and great thirst. Polyuria and emaciation was also noticed at this time. Three weeks later he noticed weakness, pain and stiffness in the right arm and leg. This improved somewhat later. Two weeks before admission, he had numerous rightsided spasms, with a great flow of saliva but no loss of consciousness. It was found that he had lost the power of speech. The palsy and aphasia showed some improvement in a few days but became worse two days before he entered the hospital. Here it was found that he could answer simple questions although part of his speech was unintelligible and he could not repeat difficult words. He could write correctly and read by spelling out the words. The eyes were normal. The muscles supplied by the middle and lower segments of the facial nerves were paretic. The patellar reflex was reduced on the right side. The right arm and leg were paretic. No Romberg symptom. A few days later he had very frequent convulsions, beginning with deep and noisy respiration, followed by a short period of tonic spasm in the territory of the middle and lower segments of the right facial nerve, then a longer period of clonic spasm in the same region with spasm of the muscles of the neck and twitching of the right arm. Toward the end, a profuse flow of saliva set in, which continued after the cessation of the spasm. The attacks lasted about two minutes and were not attended by loss of consciousness. The condition became steadily worse and death occurred on the fifth day in hospital. Autopsy showed intense acetonæmia, cerebral hyperæmia and parenchymatous hepatitis. The microscopic examination of the brain showed only an intense engorgement of the cerebral vessels, the nervous elements being normal. As the urine contained a large quantity of acetone and other abnormal constituents, the author considers, in the absence of organic change, that the hemiplegia was of toxic origin. (Dr. Emil Redlich, *Wien. Med. Wochenschr.*, No. 37-40, 1892.)

HEMIPLEGIA FOLLOWING DIPHTHERIA.—A case of Dr. Seiferts is reported in the *British Med. Journal*, in which on the 10th day from commencement of a severe attack of diphtheria, paralysis of soft palate came on; cardiac dullness enlarged towards right; ventricular systole irregular, feeble and intermittent. Next day increased cardiac debility, with symptoms of collapse occurred. Following night patient suddenly awoke with a cry, stared around but could neither speak nor move her right limbs; lower part of right side of face also paralyzed, tongue deviated to right; no convulsions; sensibility on hemiplegic side normal; able to understand spoken language, but to all questions responded "Anne, Anne". For some weeks little change; speech normal at end of six months; indications of partial degeneration of pyramidal tracts. Sequence of events according to Seiferts—myocarditis, cardiac thrombosis, embolic occlusion of Sylvian artery.

CASE OF DOUBLE HEMIPLEGIA WITH BULBAR SYMPTOMS.—Service of J. Hughlings Jackson, M. D. Patient, aged 52, suddenly became giddy while walking, also paralyzed on left side, and had difficulty in talking and swallowing. Five years before had similar attack with loss of power on *right* side. Onset of both attacks sudden. Nothing of importance in history with exception of an attack of gout ten years previous. Complete paralysis of palate but not of vocal cords; movement of the box of larynx not affected; no wasting of muscles nor fibrillary tremor. Plantar reflexes excessive but equal; knee-jerks exaggerated; slight ankle-clonus obtained on right side; sphincters unaffected; sensibility normal. Ophthalmoscopic examination pointed to albuminuric retinitis. No aphasia or impairment of ability to read and write but great difficulty in articulation. Urine contained albumen. Patient very hysterical. Eighteen months after seizure suddenly lost consciousness and died in state of coma. Necropsy showed quantity of blood in subarachnoid space over pons, medulla and inferior surface of cerebellum, this coming from a rent in roof of fourth ventricle, also from corpus callosum. Hæmorrhage apparently started in anterior part of left lateral ventricle where it had extensively ploughed up white matter and basal ganglia, also the pons. All vessels at base were atheromatous. Kidneys showed granular contraction, and left ventricle of heart was hypertrophied. After hardening,

cord and medulla showed extensive degeneration of pyramidal tracts from crura downwards. Hypoglossal nuclei normal. Slight differences from the symptoms of bulbar paralysis enabled Dr. Hughlings Jackson to predict a double lesion higher than the bulb. In above case the important points in regard to diagnosis were the distinct history of two separate attacks of hemiplegia, absence of usual wasting of tongue and of the "squirming" movements present in bulbar paralysis, and absence of fibrillary twitching in other parts. The weakness of chest probably accounted for feebleness of voice, but difficulty in articulation resulted from paralysis of palate. Conditions present in this case explained by the hypothesis, "that bilateral movements habitually associated are represented in each half of the cerebrum." After first attack articulation was only temporarily interfered with because path on one side was preserved, but after second seizure peripheral mechanism of articulation was rendered inactive. Unfortunately the hæmorrhage made it impossible to locate lesions, but Dr. Hughlings Jackson thinks that the double descending degeneration visible above level of medulla, and the healthy condition of cells of bulbar nuclei, prove the case to be one of double hemiplegia instead of bulbar paralysis.—(*Lancet*, Dec. 10.)

ARTERIAL PRESSURE IN HEMIPLEGIA.—Dr. Féré has studied sphygmographically (*La Trib. Méd.*, Feb. 2) arterial pressure in hemiplegia. There has been constant diminution on the affected side. These phenomena are observed in hysteric hemiplegia also. He suggests this as a means of detecting simulation.

J. G. KIERAN.

FUNCTIONAL OPHTHALMOPLÉGIA WITH PARALYSIS AND IMPLICATION OF CRANIAL NERVES IN YOUNG WOMEN.—Dr. Suckling (*British Med. Journal*, Mar.) records two cases of ophthalmoplegia with general motor weakness and other paralytic symptoms. Patients complain of heaviness and difficulty in raising limbs; restricted movements of eyeball, nystagmus, there being ophthalmoplegia externa; diplopia and squinting at times; no aphasia, motor or sensory; difficult mastication; slight chorea in one; no thoracic, abdominal, or urinary affection; no mental peculiarity; suffocative attacks in one, with probable paralysis of abductors of vocal cords. Recovery may take place or

patient may die from paralysis of abductors of vocal cords, or from some intercurrent disease as bronchitis or pneumonia. Dr. Suckling believes these cases and three similar ones of Dr. Bristowe prove that there is a functional disease chiefly affecting young women, which is characterized by ophthalmoplegia, with other motor symptoms, as, hemiplegia, general paralysis, dysphagia, dysarthria; and that the affection is chronic and closely allied to exophthalmic goitre. The affection is one of the motor nuclei in the iter and floor of fourth ventricle; general paresis probably due to extension of disease into motor tracts; nuclei of third, motor nuclei of fifth, nuclei of facial, spinal accessory, and hypoglossal nerves probably affected.

CEREBRAL SYPHILIS AND ITS RELATIONS TO NERVOUS DISEASES.—Tarnowski (*Congress of Russian Physicians*, 1892) set up the following theses: 1. Anamnesis, sequelae of syphilis and the result of experimental therapeutics cannot be acknowledged as a scientific basis for the diagnosis of cerebral syphilis. 2. Syphilis is, at present, too commonly assumed as a cause of cerebral disease. 3. The diagnosis can only be made on the basis of the symptomatology peculiar to the disease. 4. The diagnosis is impossible without an accurate knowledge of nervous and mental diseases. 5. Tabes and progressive paralysis are never phenomena of syphilis. 6. The mercurial treatment of tabes and progressive paresis should be abandoned, even when antecedent syphilis has been proven. 7. Alcoholism and predisposition are the most important factors favoring the localization of syphilis in the brain. (*Wien. Med. Wochensch.*, No. 50, 1892.)

G. J. KAUMHEIMER.

SYPHILITIC AFFECTIONS OF THE NERVOUS SYSTEM.—Abstract of Lettsomian Lectures delivered by Dr. J. S. Bristowe. The lecturer stated that syphilis must be considered as a specific infective disease due to the invasion and proliferation of living organisms, and as having relationships with other specific infective diseases, especially small-pox, tuberculosis and cancer. Like the last two, syphilis is apt to assume an aggressive character after an indefinite period during which the poison is inactive. The lesions of syphilis are all irritative growths determined by the actual

presence of the living organism. The difference in the specific proclivity to attack certain tissues, which distinguishes the secondary and tertiary stages, Dr. Bristowe attributes to changes in the relative sensibility of the soil due to the protective or modifying influence exerted upon the tissues during the former of these stages: and he holds further, that the distinctive features of inherited syphilis are due in different degrees to operation of the same cause, to difference of vulnerability of the foetal tissues as compared with those of the adult, and to interference with developmental changes which are going on in early life. Any infected tissue may convey germs of the disease to others. The consequences naturally following syphilitic arterial disease are derangement of nutrition and circulation in parts supplied by diseased vessels, with either softening or hæmorrhage. Usually these lesions occur in limited districts. Dr. Bristowe related the histories of several cases illustrating this subject, which are of interest as they describe the character and consequences of advanced syphilitic arterial disease of large vessels, the lesions or symptoms referable to the nervous centers being of secondary importance. (*The Lancet*, Jan. 14.)

SYPHILIS OF THE NERVOUS SYSTEM.—Dr. Hoppe reports the case of a man who had contracted syphilis six years previously, seized with a rapidly oncoming hemiplegia without facial paralysis or disturbances of speech. This gradually improved, two years later had pains in arms and hands, followed in a few days by paralysis of all extremities, sensory disturbances, and difficulty of swallowing; died three months later of pneumonia. Spinal cord was the seat of two different pathological lesions, one being a combined systemic disease affecting the pyramidal tracts whole length of cord and columns of Goll and to a less extent of Burdach in the cervical and dorsal regions. The columns of Clark and the cerebellar tract also involved. The second lesion was an acute softening affecting the lower cervical and upper dorsal cord. The microscope gave chief evidence of the syphilitic nature of the process. Arteries and veins of cord diseased. He reports a second case in which the disease was situated in the pons, presenting during life the picture of bulbar paralysis. A rapid left hemiplegia with paralysis of both sixth nerves and paresis of lower face followed by paralysis of all extremities, both facial and

hypoglossal nerves, great dyspnoea and rapidity of pulse. Patient died in three days. The lesions affected both sides of pons, total on right and and partial on left, also involved both fillets. The paralysis of the cranial nerves was due to the lesion in their paths above their nuclei. These latter (except that of the sensory fifth) being intact. The basilar artery was completely obstructed and a structure resembling a gumma found in its wall. Patient contracted syphilis ten years previously. Had for some months before fatal illness suffered from intense and constant headache, generally in occipital region. (*British Medical Journal*, April 1, 1892.)

SYPHILIS AND OSTEOARTHROPATHIE HYPERTROPHIANTE PNEUMIQUE.—It has long been known that in the course of certain disease of the heart and lungs a deformity of the hands and feet occurs, consisting in enlargement and clubbing of the fingers and toes and flattening and bending of the nails. This has been confounded with akromegaly, but Marie has pointed out the differential diagnosis. H. Schmidt (*Münch. Med. Wochenschr.*, No. 36, 1892) reports a case with a syphilitic history in which the enlargement of the terminal members disappeared after the use of iodides. (*Deutsche Med. Wochenschr.*, No. 40, 1892.)

G. J. KAUMHEIMER.

AN UNUSUAL CASE OF CEREBRO-SPINAL MENINGITIS.—W. Gilman Thompson, M. D., puts on record an interesting case of cerebro-spinal meningitis, occurring in a boy of 10 years, who fell several feet, very soon became comatose in which condition he remained until death from exhaustion 10 weeks later. Symptoms attributed to extensive lesions of meninges and of brain and cord; no external evidences of contusion or fracture; emaciation very great. In few weeks contraction of flexor muscles occurred and extension well nigh impossible; risus sardonicus very pronounced; mouth rigidly open; temperature and pulse fluctuate greatly. Four weeks before death an eruption of dusky red maculæ appeared; four days before death left cornea became opaque and ruptured; at intervals patient emitted peculiar cry resembling cri hydrocephalique. Autopsy—Lesions of special interest found in brain and cord; calvarium thin; no fracture; dura mater much thickened and beneath it, forming a fluctuating mass on left side,

over frontal and parietal lobes, were found two ounces of blood-stained serum and pus; brown-red pigmentation of dura over most of the surface; pia congested and thickened especially on left side; convolutions of left hemisphere infiltrated with brown-red pigment, and atrophied; entire brain very soft; weight 37 ounces. Microscopical examination — Cerebral cortex contains unusual number of nuclei and small round cells very abundant in certain areas of pia mater; cerebral vessels distended with blood; cord meninges intensely congested; cord extremely soft. Features of chief importance suddenness of invasion, with no evidence of traumatism, and no epidemic of cerebro-spinal meningitis in vicinity; long duration of case, despite the extraordinary emaciation; lateness of appearance of eruption: extreme degree of flexion and rigidity of joints; irregularity and extensive range of temperature.—(*Med. Record.*)

TRAUMATIC LESIONS OF THE SPINAL CORD.—Dr. Preston reports several cases of injury to the spinal cord and gives the following cases as illustrating very well the symptoms of injury to the cervical cord: The first case is one of injury to the upper part of the cervical region; second of injury about the mid-cervical region. Patient gave a history of having plunged head first into shallow water. Ten or twelve hours after accident no signs of injury to head, although it was somewhat retracted and movement of it caused intense pain. All four extremities paralyzed, the lower completely, the upper being capable of slight movement. Sensation lost from neck down. Breathing diaphragmatic. Patellar reflex present. Pupils contracted to pin points. Temperature 104°. Mind perfectly clear. Priapism, and loss of control over bladder and rectum. Death occurred the day following injury. Autopsy revealed a fracture of the fifth cervical vertebra. The cord showed laceration at the point of fracture with extravation of blood extending about an inch vertically. Case 2. Patient fell about forty feet upon a rough, irregular surface. Examination showed lacerated wound of scalp, but no fracture of skull. Perfectly conscious; complete paralysis of lower extremities; partial paralysis of upper. Sensation entirely lost from level of third rib down; impaired over chest and arms; respiration diaphragmatic; priapism marked; paralysis of bladder and rectum; pupils

finely contracted. Temperature 103° an hour after admission; reached 109° just before death which took place the day following reception of injury. Autopsy, laminæ of fourth and fifth cervical vertebræ fractured on both sides. Dura slit longitudinally, there was extra-dural hæmorrhage posteriorly. The cord opposite the fracture showed hæmorrhage and disintegration of its substance. The next case illustrates one of injury in mid-dorsal region. If complete, causes loss of motion and sensation below seat of injury. A lesion in the lumbar region involving lumbar enlargement causes loss of motion and sensation in all parts below, loss of control over bladder and rectum and loss of superficial and deep reflexes. Case 3. Patient was crushed by a bank of earth falling upon him. No perceptible external injury. Entire loss of motion and sensation below level of first lumbar vertebra and loss of control over bladder and rectum. No loss of consciousness; superficial and deep reflexes abolished. Temperature on day of admission 102° ; remained at this point five days. Sank to normal; did not rise again until just prior to death; bed sores of a trophic nature in gluteal region, and cystitis a later complication. Autopsy showed last dorsal and first lumbar vertebræ crushed and dislocated forward, compressing the cord and reducing it to an almost empty sheath. Case 4. Patient fell nine or ten feet striking upon his back and side. No loss of consciousness; very little pain; instant paralysis of the lower extremities; slight scalp wound; no fracture of skull; marked projection of tenth dorsal vertebra; total loss of power in lower extremities; loss of sensation below umbilicus; bladder and rectum paralyzed. Cystitis and bed sores of a trophic nature developed. Patient died sixteen days after admission. Autopsy showed fracture of the tenth dorsal vertebra greatly compressing and crushing the cord. Several other cases are given showing the different forms of paralysis due to lesions of the spinal cord and the hollow cavities. The author is confident that the surgery of the future will make it possible to do something for these cases of injury to the spinal cord. (*Med. News*, March 18, 1893.)

B. M. CAPLES.

MYELITIS SIMULATING HÆMATOMYELIA.—Dr. Steell records a case of almost instantaneous onset of paralysis occurring in acute myelitis, which simulates spinal hæmorrhage so

closely as to make differential diagnosis almost impossible. Patient, girl of 13 years, shortly after feeling of weakness became paralyzed in limbs. On left leg and left side of abdomen and chest as high as seventh rib unable to distinguish between touch with head and point of a pin. This area ceases little to left of middle line of abdomen and chest. On right side is able to distinguish feeling of objects. Above seventh rib, sensation normal on chest and face. Tenderness on percussion over seventh cervical and first and second dorsal spines, pain in cervical and dorsal regions. In two weeks, after a restless period, patient died. Necropsy, spinal meninges normal; cord soft in lower cervical region, firm at other parts; normal externally; no signs of hemorrhage or tumor growth. Microscopical examination revealed acute myelitis affecting grey matter chiefly; normal structure of grey matter replaced by all infiltration and dilated vessels, white matter more affected around right anterior horn. The interesting characteristic feature is unilateral analgesia and thermo-anæsthesia, while tactile sensation is retained. (*Lancet*, Jan. 21, 1893.)

BROWN-SEQUARD PARALYSIS FOLLOWING INFLUENZA, WITH FARADIC AND FRANKLINIC REACTION OF DEGENERATION.—A girl, aet. 17, formerly healthy, had influenza in November. A constant pain in the spine between the scapulae, as well as in the right arm and shoulder, remained after recovery. About two months afterward a weakness of the right leg was noticed. At the end of January a paralysis of the right leg, the bladder and rectum and anæsthesia of the entire left side of the trunk and left leg occurred during sleep. A weakness of the right arm was also noticed at this time. The rectal and vesical paralysis soon disappeared under electrical treatment and the mobility of the right leg became greater. About the middle of May, when Eulenberg first saw her, the right leg was dragged in walking with crutches, the left side and right arm were anæsthetic, the right pupil and palpebral fissure were smaller than on the left side and the right side of the face was appreciably warmer than the other. The paralyzed muscles were atrophic. A very minute electrical exploration was made and demonstrated the presence of ordinary (galvanic) R. D., total or partial, in almost all the affected muscles. In the extensor hallucis longus of the right leg, a

combined R. D. for the faradic and franklinic current, both direct and indirect, was found. The contraction was slow, with a still slower relaxation, the latter lasting up to four seconds. For the technical particulars the reader is referred to the original paper. All the qualities of cutaneous sensation were reduced or abolished on the left side, while those varieties of sensation referred to as muscular sense seemed normal. The anæsthesia extended up to about the level of the axilla. The right leg was somewhat hyperæsthetic, the reflexes were increased. The right arm was analgesic and hyperæsthetic in the distribution of the ulnar nerve. In regard to etiology or nature of the lesion the author has no plausible theory to offer. The location of the lesion could be distinctly limited to a level of the seventh cervical segment by a consideration of a distribution of the paralysis. The franklinic reaction of degeneration is a rare phenomenon as only two cases have been reported by the author and Bernhard. In a footnote the author states that the paralysis of the right and anæsthesia of the left leg had improved considerably, the paralysis of the right arm had increased. (Prof. Eulenberg, *Deutsch. Med. Wochenschr.*, No. 38, 1892.)

G. J. KAUMHEIMER.

THE TOPICAL DIAGNOSIS OF THE PUPILLARY SYMPTOMS OF TABES.—Dr. Guillery has an article on this subject in *Deutsch. Med. Wochenschr.* (No. 52, 1892.) The article is very full and cannot be abstracted in such a manner as to give its contents. This notice is given to call the attention of such of our readers as may be interested in the subject, to it.

G. J. KAUMHEIMER.

POSTERIOR ROOT SCLEROSIS AND MEDULLARY SCLEROSIS OF ATAXICS.—Dr. Pierre Marie (*Prog. Méd.*, Dec. 24, 1892) has recently shown that the influence of sclerosis of the posterior roots in the production of medullary sclerosis of ataxics was first pointed out by Leyden and refutes the claim of Dejerine to priority.

J. G. KIERNAN.

BRAIN OF TABETICS.—Dr. Nageotte (*Mercredi Méd.*, Feb. 1) has examined the brains of three ataxics dying without demonstrable mental symptoms. One of these (a 53-year-old man) presented the characteristic lesions of parietic dementia.

J. G. KIERNAN.

SYRINGOMYELIA AND ALLIED AFFECTION.—G. B. Pellizzi, (*Rivista Sperimentale*, XVIII, III and IV, Dec 31, 1892) gives an extended critical review of the literature of syringomyelia. Morvan's Disease, lepra anæsthetica, Raynaud's Disease, scleroderma, xeroderma, etc., in which he states and passes judgment on the various views that have been offered as to the pathogeny and relations of these disorders. We offer here a brief statement of the principal points only of his review. As regards the first of these, syringomyelia, he begins by noticing the still unsettled state of the question of its pathogenesis. The majority of authors hold that most cases are to be referred to the destructive absorption or regression of gliomatous tissue. Hallopeau and Joffroy have reported cases that seemed to them due to myelitis of the grey matter. Langhans in 1881 published the opinion that circulatory stasis was the cause. Kronthal and Schultze have published cases in which this was apparently the cause, arising from cancerous tumors. Recently Rosenbach and Schtscherbak have experimentally produced cavities by compression and consequent sanguine stasis in dogs. Joffroy and Achard have also reported a case of non-gliomatous syringomyelia associated with Basedow's disease. The same authors in 1887 reported cases in which the cavities were referred to an arteritis obliterans. Recently Weigert and Achard, independently of each other, and proceeding by different methods, have suggested certain reservations to the glioma theory on the grounds of the neuroglia proliferation in syringomyelia agreeing with the conditions ordinarily met with under the name of glioma and the peculiar development of the spinal cavities. Pellizzi in discussing the various possible causes of spinal cavities, while not endorsing fully the objections of Achard and Weigert, calls attention to the effects of meningitis as observed by Charcot, Vulpian, Simon and others. Another important lesion that probably sometimes induces the disorder in his opinion is spinal hæmorrhage. This relation has recently, it is true, been denied by Charcot and Joffroy, on the grounds of the absence of pigment traces in the tissues, and the lack of history of sudden paralysis preceding the disease. Against the first of these objections Pellizzi claims that the color-variations in syringomyelia are analogous to those of apoplectic cysts and the structure of the walls of the two kinds of cavities is identical. To the second he replies that spinal hæmorrhage may vary very

much in its extent, its course and in its symptoms. Cases have been reported by Minor in which the paralytic symptoms of spinal traumatism disappeared within only a few days and were followed later by symptoms similar to those of syringomyelia. An old spinal hæmorrhage that has been comparatively latent may revive the morbid processes that result in spinal cavities, and thus the clinical connection between the two be obscured. While Pellizzi admits the possible gliomatous origin of a majority of cases he yet thinks that there are many that may recognize altogether different causes. When we have a sufficient number of cases carefully reported both clinically and pathologically, which at present we have not, he believes that we will be able to determine with exactitude even *intra vitam* the pathogenesis of the vast syndrome that to-day passes under the name of syringomyelia, whether it be glioma, focal inflammatory lesions, meningitic alterations, spinal hæmorrhage or arterial thrombosis, etc., etc. While the pathogenesis of syringomyelia is somewhat obscure, its clinical symptoms, so complex and varied, have been quite largely elucidated. They are reviewed at length and discussed by the author. (1.) *Sensory disturbances, anæsthesia.* An almost constant symptom is partial thermic anæsthesia, very often with integrity of the tactile and space senses, and extremely often accompanied with a partial analgesia occupying a zone more or less extended than the thermic disturbance. This thermic anæsthesia is not distributed according to the nerves, but is located on certain divisions of the trunk or limbs, sometimes clearly limited in the median line, but more often occupying one arm and part of the thorax or a more or less extensive segment of a limb. Besides its irregular distributions this thermic anæsthesia is not absolutely stationary but varies somewhat in situation and intensity. Thermic paræsthesia has also been observed. This thermic anæsthesia is usually first to appear but often it is accompanied from the beginning by the analgesia which, except in extent, corresponds with it very closely. Tactile, pressure and space anæsthesia are usually unimpaired, but this is not the absolute rule and has not the importance at first given it by Charcot. A disassociation of the sensibility is met with in hysteria, and may be absent in syringomyelia. In this disease also all forms of cutaneous sensibility may be diminished or lacking, and cases of this have been reported by Roth,

Schlesinger, Starr, Remak, and others. The tactile, space, and pressure senses generally in these cases follow the same rules as to appearance and distribution as the thermic and pain senses. The muscular sense is rarely affected, though Knoppek has reported an instance of its complete loss. The pupillary reflex to pain is lacking from the analgesic zone, and this is a good differential point between syringomyelia and hysteria, in which last it persists. Dejerine and Tuillant have reported restriction of the visual field in seven cases, affecting all colors, but especially the green; it was least as to white. Subjective sensory symptoms are always present; the patients complain of abnormal sensations of heat, cold, constriction, formication, etc., and sometimes of violent pain even existing with the objective analgesia. (2.) *Motor Disturbances.* Paresis and paralysis may be merely the result of the progressive muscular atrophy, but they may also be the consequence of the syringomyelitic process invading the motor column and thus occur independently (Raymond.) Other motor symptoms that have been noted are subsultus of special muscles or groups of muscles, spastic contraction of the legs, epileptoid tremor of the feet, and fibrillary or fascicular movements, all rather frequent phenomena. Motor inco-ordination is rare. Disorders of the sphincters are commonly lacking; a unilateral myosis with diminution of light reaction is common. The tendon reflexes are affected irregularly, an increase is sometimes observed of the knee jerk, but there is generally a decrease in the atrophied limbs. The electrical reaction of the muscles varies according to their condition. It may be normal or abolished, degenerative reaction is not uncommon. (3.) *Trophic Disorders.* These are manifested especially on the skin and in the voluntary muscles. Muscular atrophy is one of the most prominent features of the disease. Usually the smaller muscles of the hand are first affected and the change gradually involves the forearm, shoulder and trunk. The legs are commonly uninvolved till an advanced stage of the disease. The cutaneous trophic disorders are variable, and may be very extensive; sometimes they only involve the hand. The generalized trophic eruptions are commonly vesicular or pemphigoid, in some cases producing ulcers, sometimes the initial lesion is a sort of gangrene resembling bedsores. Cheloid is sometimes a sequence. Blocq has described a case in which a vitiligo covered a large part of the bodily

surface. When the ulcers are located in the hand, they have been seen to present all the characters of *mal perforant*. Chipault has reported a case of an identical lesion of the foot. Brunzlow has also described similar cases. Thickening and glossy skin have been observed in the hand (Roth) and gangrene of the extremities has occurred. Whitlows are not uncommon and their production is favored by the facility afforded by the analgesia to traumatisms. The nails are also often affected; they become thickened and brittle, etc. and at times are shed spontaneously. The alterations of the bones and articulations are very common, luxations and fragility of the bones and especially arthropathies are very frequently met with; the last named are particularly frequent in the joints of the upper extremity. The spinal deviation, seen in more than half of the cases, is also probably to be attributed to a trophic involvement of the vertebrae. (4.) *Vaso-motor disorders*. These are numerous and varied. The most common is urticaria provocata; many patients present the phenomena of auto- or dermographia. Other lesions are local œdema and cyanosis, lowered temperature of the extremities or other parts, tumefactions, etc. (5.) *Secretory disorders*. The perspiration is readily affected in syringomyelia; it is rarely diminished, is generally increased; the hyperidrosis is usually in the affected zones, only slightly more irregular in its distribution. It is variably in duration, sometimes appearing throughout the disease, at other times only for a few days or hours at a time. Some authors have observed also anuria, polyuria, and alterations of the salivary and lachrymal secretions. It will be readily seen that the symptoms of syringomyelia are due to lesions of diverse spinal centers. Pellizzi suggests that careful clinical studies of the disorder may, in connection with equally thorough pathological studies of the cases, afford valuable data and assist in determining the physiology of the cord. The first of the other conditions or supposed other morbid states that is taken up and compared is Morvan's Disease. *Morvan's Disease*. This, as described by Morvan, who published his first seven cases in 1883, is characterized by three cardinal symptoms, viz.: analgesia, paresis and whitlows. The analgesia may be slight in the beginning, but after the whitlows have been numerous and the skin is thickened and cracked, it becomes complete and may involve the whole of one arm or both arms and in rare cases, the lower extremities, the face, and

the trunk. In these cases it is not total, there is always more or less of the surface uninvolved. The distribution is closely analogous to that in syringomyelia and not according to the territories of separate nerves. While Morvan insisted on this fact of analgesia especially, but it is not seldom accompanied by tactile and thermic anæsthesia also. Recently La Vecchia has argued that dissociation of the sensibility is not of great value in differentiating Morvan's disease and syringomyelia, and the literature of the subject favors the same conclusion. In his first publication Morvan claimed that paresis was constant, but later studies have shown that this is incorrect. It was lacking in the observation of Guelliot and Broca, and also in these cases reported by Morvan himself in 1886. According to Morvan the reaction of the muscles to the faradic current is lessened; others (Hanot, Oger de Speville, Guinon and Dutil, etc.) find it unaltered. The tendon reflexes vary as in syringomyelia. Whitlows are the characteristic of Morvan's disease. Sometimes they are preceded by pain, sometimes by analgesia, sometimes there are no prodromata. They have all the characters of the affection as it is occasionally met with in syringomyelia. The mutilations due to them are not confined to the hands, they may occur on the feet, and have the characters of *mal perforant* (Verchère). Marchiafava and Bignani have recently published two cases of Morvan's disease in which it began in the right foot, passed then to the left, and later involved the hands. Other important trophic disorders are arthropathies, fractures from slight cause, trophoneurotic ulceration, etc. Scoliosis is frequently coincident with Morvan's disease, about one-half the cases according to the authorities. Vaso-motor disorders occur, especially in the hands, the parts are violaceous and cold. In a case of Souque there was a reddish erysipelatous appearing œdema on the dorsal face of the metacarpus and carpus, and lower third of forearm. In the special senses we find that Morvan found narrowing of the visual field in five cases out of eight, in three only on one side; in two cases of Guinon and Dutil in one there was amaurosis on the left, and in the other restricted visual field on the right; there was narrowed visual field in the second of the cases reported by Joffroy and Achard. It is stated that weakening of audition and abolition of taste and smell have been observed. Only three necropsis of Morvan's disease are reported, and the lesions found consisted in alterations of

peripheral nerves and spinal lesions largely corresponding to those of syringomyelia. In an autopsy of a patient of Prouffs made by Gombault and Rebaul, there were found, besides neuritic lesions of the nerves of the members, excessive development of interstitial tissue and vascular lesions in the posterior columns and cornua, also involving the gray substance. Owing to a pronounced scoliosis the cord could not be extracted in a condition to satisfactorily ascertain or exclude the existence of cavities. Joffroy and Achard, in the autopsy of a typical case of Morvan's disease, found a typical gliomatous syringomyelitic cavity, and in another later one, they found a cavity with walls of neuroglia, and with the characters of typical syringomyelia. In both these cases there were also alterations of the peripheral nerves, but not more prominent than are often met with in chronic disorders of the nerve centers. In the discussion of the symptoms, Pellizzi points out that Roth, in 1887, had claimed the identity of Morvan's disease with syringomyelia, and that none of the symptoms are absolutely special to either. The whitlows, Morvan's essential symptom, were observed in syringomyelia by Roth in half his cases, in four cases of Bruhl, and in others reported by Schultze, Czerny, Joffroy and Achard, and Charcot. It does not therefore seem so infrequent and when observed the characters are identical with those in Morvan's disease. The sensory dissociation is not pathognomonic of syringomyelia, as we have seen it occurs also in hysteria, and it has been reported in Morvan's disease by Church, Grasset, Sacho and LaVecchia. The other symptoms, atrophy, paresis, spinal deviation, trophic disorders, disturbances of vision, are also more or less common to both affections. While the pathological results of Gombault and Rebaul appear to indicate a peripheral origin of Morvan's disease, there is some question as to the exact pathological value to be attributed to nerve lesions of the kind which has been questioned by Brissaud. Thus while it is beyond question, Pellizzi holds, that peripheral nerve lesions exist in Morvan's disease and probably aggravate the trophic and sensory disturbances, the dependence of the whole symptomatology of the disorder cannot, with certainty and with our present knowledge, be attributed to them. The observations of Joffroy and Achard, on the other hand, bear strongly against the theory of the distinction of the two disorders. The conclusions of Pellizzi, from his critical study of all the literature, are, that, while there is a

great analogy between the two forms, it is impossible to decide positively as to the unity or duality of the disorder. In any case Morvan's disease has special marked characters that distinguish it either as a species or a variety; such as the localized character of the lesion for long periods, its slow progress, as compared with syringomyelia, the less severity of the trophic lesions, the less percentage of bilaterality, etc. There is no symptom decisive as to the central or the peripheral origin of the disease. After some remarks on the effects of peripheral neuritis, in which he shows that it has generally clinical difference from syringomyelia and Morvan's disease, Pellizzi passes to the discussion of the next allied disorder. *Lepra anaesthetica*.—Not very long since, Zambaco, who has had large experience with leprosy in the Orient, gave it as his opinion that lepra anaesthetica, syringomyelia and Morvan's disease were identical. Clinically there are strong resemblances, but pathologically the case is different, the Hansen-Niesser bacillus and the lack of the organic lesions in the cord distinctly separate lepra from the other disorders. The difficulties of diagnosis are, however, sometimes very great, as is instanced by a patient who had contracted lepra in Tonquin, and who was first diagnosed by Rendu as a case of neuritis, later as syringomyelia complicated with the former affection. Later Thibierge and Charcot diagnosed it as lepra, and the former referred to it as showing the resemblance of the three disorders though not admitting their possible identity. Very recently Zambaco published the following conclusions of a thorough study of lepra: (1.) Autochthonous lepra under its anaesthetic form exists at present in Brittany: it preserves its classic characters, but is mild in most cases, incomplete and attenuated; usually shows itself by only one or two symptoms. Similar cases occur in countries where lepra is prevalent and there lack the pigmented patches, nodules, and tubercles, on which is based the distinction between syringomyelia, Morvan's disease, and lepra. (2.) In almost every region in Europe there are at present typical cases of this attenuated lepra. (3.) Morvan's disease, frequent in Brittany, where lepra also is found, is only a relic of the latter. (4.) The *cagots* of the Pyrenees, the *kakons* of Brittany, the *agots* of Spanish Navarre, the *gabets* of Guienne, the *caeths* of Southwestern Britain are only descendants of lepers. (5.) At Constantinople, indigenous leprosy is only met with in the descendants of Spanish Jews

who have been acclimated there three centuries. Morvan's disease is therefore only Danielson's *lepra anæsthetica* attenuated, the same is true of some cases at present referred to syringomyelia. In a very recent work Roussel has accepted the same conclusion. Lejaid has studied the *cagots* of the Pyrenees and noted trophic lesions like those of Morvan's disease. They are considered and treated as they were in times of leprosy. Magitat has found similar cases in the Bearn territory, where they pass under the same name, *cagots*. From historical documents, local traditions, etc., he concludes that there is here a survival in a mild form of leprosy as it existed in southwest France in the time from the thirteenth to the sixteenth centuries. Vidal has objected to these conclusions that the *lepra bacillus* has not yet been found in these cases. It is only certain that, if it is found, it will be irrefutable evidence in favor of Zambaco's theory. Pellizzi, from all these facts, is inclined to believe with Zambaco, that further investigations will very probably refer to peripheral infection (*lepra?*) perhaps all cases of Morvan's disease, many of syringomyelia, and possibly also some of those defined as Raynaud's disease.

Raynaud's Disease. While this seems more certainly a morbid species than does Morvan's disease, yet its symptoms are largely included in the manifold syndrome of syringomyelia. Roth and also Thibierge have noted the similarity, and Schlesinger has argued that part of the cases of Morvan's disease are really syringomyelia, and others are Raynaud's disease. The symptoms of this disorder, consisting in local anæmia and asphyxia with cyanosis followed by gangrene are reviewed in full and the variations observed by various authors noted. The theories of its pathology are also discussed, and Pellizzi concludes that it may be sometimes of central, sometimes of peripheral origin. There are some clinical facts not explainable by the peripheral theory, such as its connection with the general conditions of anæmia, chlorosis and neuropathic states, the sudden symmetrical attacks, etc., which support Raynaud's theory of the central origin of the malady, while the nerve lesions that have been met with by Petres, Wylesworth, Thompson and others speak on the other hand for its peripheral origin. Other affections, scleroderma, xeroderma, mal perforant are noticed more briefly, and in the main the author of the review suspends judgment as to their pathogeny and exact relations. He concludes by saying: However much it is

sought to obtain all available facts, and only on the basis of these can any discussion be conducted, it must be agreed that our actual knowledge of the majority of the forms described, especially on their pathogenetic side, is far from being complete or certain. What part infection, intoxications, spinal lesions, those of the peripheral nerves, or of the vessels, may have, will have to be decided by future studies when other observations, not so much numerous as accurate and complete, shall be added to the few parts we now possess.

H. M. BANNISTER.

CASE OF SYRINGOMYELIA, WITH AUTOPSY.—Dr. James Hendrie Lloyd publishes a case with illustrations of sections of the spinal cord at different elevations. The cervical enlargement was broadened and flattened. A large cavity was found beginning in the lower part of the medulla, broadening out in the cervical region and extending into the dorsal cord. It did not extend into the lumbar enlargement. The cavity was situated a little to the right side of the cord. Most of the multipolar cells in the anterior horns of the cervical enlargement were atrophied and granular. The lateral pyramidal tracts degenerated and the direct cerebellar tracts partly so. At some levels the latter were only slightly degenerated; more degenerated on the right than left and pretty generally degenerated in the medulla. Owing to distortion the condition of Clark's column could not be definitely determined. The report says: "This cord, followed through its whole length, presents an epitome of the gliomatous process in all its various stages. Thus, in the medulla the process is diffused in various areas, and a cavity has not yet been formed. In the cervical region the cavity is formed, and is very extensive, with secondary effects in the white matter; in the dorsal region the process is more limited, and the glioma tends to one side; while in the lumbar enlargement the process is still in an early stage, prior to the formation of a cavity." The remainder of the description of microscopic appearances is interesting but rather too full for quotation. We recommend those who are interested in this matter to obtain a copy of the reprint from the author. (*University Medical Magazine.*)

SYRINGOMYELIA AND LEPROSY.—Dr. Zambaco (*Revue Médico-Pharm.* Dec. 15, 1892) claims that syringomyelia is

a manifestation of leprosy, basing this opinion on researches among the *cagots* of the Pyrenees. There is an error evident of claiming that because leprosy does produce lesions identical with those found in syringomyelia, this neurosis must in all cases be due to leprosy.

J. G. KIERNAN.

DIFFERENTIAL DIAGNOSIS BETWEEN LEPROSY AND SYRINGOMYELITIS.—Prof. N. Kalindero has frequently found cases of leprosy, at the outset, simulating syringomyelitis. He gives the following example: A man otherwise healthy, with no leprous history, presents anaesthetic and analgesic spots and disturbances of sensation, the temperature sense and of the electrical reactions. He sums up the differential diagnosis as follows: In favor of syringomyelia; 1. The dissociation of the sensory disturbances; 2. The integrity of the superficial facial muscles; 3. The absence of spots in the face; 4. The integrity of the hair; 5. Deviation of the spinal column. The following symptoms speak in favor of leprosy; 1. Disappearance of tactile sensibility; 2. Atrophy and paresis of the superficial facial muscles; 3. Nodosities in the course of the nerves; 4. The presence of spots in the skin, especially if they are anæsthetic; 5. spontaneous shedding of phalanges; 6. Changes in the nails; 7. Partial or complete loss of hair. In obscure cases, the application of a blister has been of great assistance. In the contents of the bleb about the third or fourth day the bacillus of leprosy can be found in leprous patients. (*Wien. Med. Presse*, No. 39, 1892.)

G. J. KAUMHEIMER.

SECONDARY SPINAL DEGENERATIONS.—Dr. Sattas recently reported (*La Trib. Med.* Mch. 9, 1893) a case in which five sacral nerve roots were compressed by a sacral cancerous tumor. At the spinal origin of the nerves affected there were found on autopsy secondary degeneracy of the column of Clark as far as the tenth dorsal. The columns of Goll were also affected.

J. G. KIERNAN.

BACTERIOLOGICAL EXAMINATION IN CASES OF SEVERE INVOLVEMENT OF THE NERVOUS SYSTEM FOLLOWING INFLUENZA.—Dr. A. Pfuhl has found in five cases in which the symptoms on the part of the nervous system were pronounced and rapidly fatal, the Pfeiffer-Canon bacillus in the meninges, cerebral substance and ventricular fluid. (*Berlin. Klin. Wochenschr.*, Nos. 39-40, 1892.)

G. J. KAUMHEIMER.

HYSTERIA SIMULATING HEMIPLEGIA.—Comby reports the case of a woman 42 years of age who, a fortnight before admission into the hospital was seized with transient loss of power in left extremities. Just before admission a similar attack affected right side; pharyngeal reflex abolished. After a few days treatment by electricity patient able to walk and use her arm; was preparing to leave hospital when she was seized by three violent hysterical convulsions at short intervals. The third ended in her death. At post mortem brain, membranes, heart, lungs and kidneys appeared healthy. Raymond suggested that the cause of death was not hysteria. Urine had not been examined and it was probable that the paroxysmal retention of urinary poison had set up the fits. Siredey had observed a fatal attack of Jacksonian epilepsy where no organic lesions were found after death. (*British Medical Journal*, Dec. 31, 1892.)

URINARY TOXICITY AND HYSTERIA.—Gilles de la Tourette (*Prog. Méd.*, Dec. 10, 1892) states that the results obtained from the injection of urine of hysterics, carefully guarded to avoid individual peculiarities, are contradictory and valueless. His results differ from those obtained by Bosc.

J. G. KIERNAN.

HYSTERICAL SIMULATIONS OF ORGANIC BRAIN DISEASE.—Dr. Ghilarducci cites (*Arch. de Neur.*, Nov., 1892) several cases in which hysteria simulated organic brain disease varying from epilepsy to cerebral syphilis.

J. G. KIERNAN.

CASE OF HYSTERICAL ASTASIA-ABASIA.—Dr. L. Bremer reports a case in which the patient sued the owner of a passenger elevator for injuries; the case being one of hysterical astasia-abasia in the author's opinion. The jury found for the defendant. He states that recently in Spain six persons were sentenced to prison on the false charges of an insane hysteric. The Medico-Psychological Society, of Paris, succeeded in demonstrating that the accuser was insane and the prisoners were set at liberty. (*Jour. of Nervous and Mental Diseases*, Jan., 1893.)

HYSTERIA WITH SPINAL IRRITATION IN A MAN.—Dr. L. P. Wallbridge reports the case of a man 48 years of age who received a fall; on getting up felt severe pain in head and

back of neck. When working where work requires stooping head and back of neck pained him so that he was compelled to cease. About ten years ago had severe pain in back of neck, chilly sensation passing from back of head down whole course of spine, became rigid, was carried to bed, had several convulsions. Any unusual excitement would precipitate one of these attacks; he will become rigid, then clonic; loses consciousness and when he regains consciousness sheds tears. From the occipital protuberance down for about three inches from the cervical spine is the sensitive area, pressure in this region causes patient to have a convulsion. (*N. Y. Medical Journal*, Dec. 3, 1892.)

HYSTERICAL RAPID RESPIRATION.—Dr. Wier Mitchell has a paper in the *American Journal of Medical Sciences* dealing with this obscure and interesting affection. From experience is able to formulate a description of symptoms associated with the condition. The breathing, he says, is largely upper costal, sometimes exclusively so, and the preservation of the relative share between that and the diaphragm is rare. As a rule it is superficial and without appearance of effort. In the early stage patient is ignorant of the existence of the symptoms. When the knowledge is acquired respiration rate increased by excitement such as the approach of the nurse or medical attendant. As a rule the symptom occurs only just after sleep; may be absent, usually is so during sleep. Sometimes the symptom is the only distinct expression of hysteria, or is not present until patient is emotionally excited. Author does not think that the type of breathing is a possible voluntary product. Regards the affection in males as distinctly rare. He related several cases which bear out this description: One in which there was a peculiar and anomalous eruption on the leg somewhat rupial in character, which appeared at first as a mass of pimples. During a stage of trance these became confluent and formed a scab, an excellent illustration of which is given in the paper. Scab was removed and under it was found a grayish-white fibrinous material from the surface of which oozed a little blood. Skin was thickened round edges, hardened and hyperæmic, and the area was very sensitive. Nothing else unusual discovered in patient's condition except marked contraction of color-fields. He also refers to different forms of rapid respiration, and graphic

records of the varieties of these were given. The paper will assist materially in elucidation of an obscure and unusual condition.

B. M. CAPLES.

HYSTERICAL SLEEP AND HYPNOTIC SUGGESTION.—Prof. E. Hitzig publishes a series of interesting observations on a case of hysterical sleep. A laborer, aged 20, sustained an injury of the head and left forearm, which kept him in the hospital for about 12 weeks. Before his wounds had completely healed, he showed peculiar intervals of sleep. At first these appeared every two to three weeks, but the interval gradually decreased to one week. These spells were preceded by excitement with headache and increase of temperature, which occasionally rose to 39.9° C. This was followed by sleep usually lasting from evening to noon of the third day thereafter. There was complete amnesia for the period of sleep. Food was never taken during this time, but he woke up during some of the sleeping spells to urinate and drink. He said that this was caused by the nurse pressing the scar upon his arm. After the sleep passed off, he complained of headache for several hours, but soon began to take nourishment freely. Examination showed a very sensitive scar on the left arm. The scars on the head were not sensitive. The patellar reflexes were much exaggerated. The patient was found to be very easily hypnotizable. Believing that this sensitive scar on the arm acted as a hypnogenic point Hitzig anaesthetized it, but had to suggest anaesthesia of the entire forearm to accomplish this. The patient had seven sleeping spells while under observation, at intervals of about seven days. Once the interval was 13 days, but after the usual prodromes, profuse epistaxis occurred on the seventh day, evidently an equivalent of the sleep. Various attempts at shortening or aborting these sleeping spells failed, until H. induced hypnotic sleep several hours before the hysterical sleep was to set in, and then suggested that he would awake at a certain signal on the following day. This he did and for over three months no further attacks of sleep occurred. The prodromes, however, occurred at variable intervals and the hyperaesthesia of the scar upon the arm remained. Hitzig adds some observations upon the bodily functions during these paroxysms of sleep. During the prodromal and somnolent stage a constant loss of weight ranging from four

kilos in the first to 0.5 kilo in the last attack. The average was near 3.25 kilos, and when daily weighings were made it was found that the lessened loss of weight in the prodromal stage was balanced by an increased loss on the somnolent stage. Corresponding to this, the excretion of nitrogen was increased, although he is not able to present complete figures. Hitzig gives those of the fourth attack as follows: on the day before the beginning of the prodromes 24.6 gm. urea; first day 30.21 gm.; second day 44 gm. During the sleep it was diminished, while after, it was again increased, being 37.95, 33.25, and 30.4 gm. respectively on three occasions. The volume of urine excreted during the sleep varied from 800 to 1000 C. C. Hitzig does not attempt to draw any deductions from this case but simply presents it on account of its many interesting features. (*Berlin. Klin. Wochenschr.*, No. 38, 1892.)

G. J. KAUMHEIMER.

THE TONGUE IN PERIPHERAL FACIAL PALSY. — Hitzig points out that authors vary much in regard to the protrusion of the tongue in facial paralysis. Some state that it is put out straight, others that it deviates to the sound side, and still others that the deviation is to the paralyzed side. Hitzig states that in the lighter forms, the tongue is always put out straight, but that in severe and protracted cases it deviates to the sound side if at all. But if it does, and the angle of the mouth on the paralyzed side be drawn to its proper place the tongue will straighten. He explains this as follows: The tongue is accustomed to keep at an equal distance from each oral angle. When it finds that it is nearer one angle it deviates to the other side until its median position between the two angles is restored. (*Berlin Klin. Wochenschr.*, No. 50, 1892.)

G. J. KAUMHEIMER.

LEAD AND ARSENICAL PARALYSIS. — Jolly showed a patient who presented a typical case of arsenical paralysis after a single suicidal dose, before the Medical Society of Berlin. He pointed out that in arsenical paralysis the lower extremities are usually affected first and most severely and that the succession of the symptoms showed the paralysis to be due to a peripheral neuritis, a point stated by Leyden as long ago as 1875. Although autopsies are rare in these cases, certain changes have been found (syringomyelitis, changes in the ganglion cells) but as these are neither

uniform nor sufficient to explain the symptoms, Jolly believes them to be accidental. On the other hand, lead palsy, by its selection of certain groups of muscles in typical order, has been considered by a number of authors, foremost among whom is Erb, to be of central origin. A small number of autopsies in which poliomyelitic changes were found in the cervical cord, and experiments by Stieglitz, who produced poliomyelitis and palsy in animals by the inhalation of lead, support this view. Jolly communicates the details of an autopsy. The patient had had almost complete paralysis of all the extremities, beginning about 16 months before death. Serial sections of the hardened cord showed that the ganglion cells of the cervical cord were rather few in number, and in certain of the sections some of the cells were somewhat rounded and, rarely, a broken up cell was seen. The usual changes were found in the muscles and nerves. Jolly does not attribute any causative influence to the changes in the cord but believes that lead paralysis like arsenical paralysis, is of peripheral origin. The marked tendency toward improvement under treatment would also be difficult to understand if we assume a central origin. (*Deutsch. Med. Wochenschr.*, No. 5, 1893.)

G. J. KAUMHEIMER.

PERONEAL PARALYSIS.—A number of cases of peroneal paralysis were shown at the meeting of the Charité Physicians, at Berlin, Feb. 18, 1892, and elicited a good deal of discussion. Hünemann showed three patients in whom the paralysis was the result of parturition. Case I. A severe forceps case complained of pain in the left leg as soon as the child was born, complete peroneal paralysis developed, which had existed over nine months with complete R. D. Case II. Complained of pain in the right leg during labor, the further history being like that of the previous case. Case III. Was very similar to case II. Hünemann attributes the isolated peroneal paralysis to pressure of the child's head or of instruments upon the fourth and fifth lumbar roots, which go to form the peroneal nerve. Disproportion between the foetal head and maternal pelvis favors the occurrence of this accident, even before instrumental interference. Another cause of these paralyses is pressure of inflammatory exudations. Klamroth presented a man who had been receiving intramuscular injections of mercury into the gluteal muscles for syphilis. At the fifth injection intense pain in the entire

left limb resulted, the knee being drawn up to the chin. The pain was constant and agonizing and within 48 hours a complete paralysis of the muscles supplied by the peroneal nerve had resulted. This had persisted with complete R. D. Klamroth attributes this accident to a high division of the sciatic and puncture of the peroneal branch by the needle. Jolly pointed out that hysterical paralyses were also likely to occur during pregnancy and labor, and called attention to paralysis due to osteomalacia, which he had observed in Strasburg and had been described by Köppen. Bernhard stated that neuritis was not to be forgotten as a cause of paralysis in the puerperium and that Martius, Kast and Möbius had described a neuritis puerperalis. (*Berlin Klin. Wochensh.*, No. 38, 1892.)

G. J. KAUMHEIMER.

PARALYSIS AFTER PNEUMONIA is very rare, according to Dr. Boullouche. He divides such cases into two groups according as they occur in the primary or later stages of the disease. Most of the former group are of a hemiplegic type. Both youth and age are affected. Sometimes the paralysis completely masks the lung trouble, which is only discovered at the post mortem. The only pathological condition found in the brain in such cases was an atheromatous condition of vessels in Sylvian fissure. Hemiplegia is often accompanied by aphasia but recovery is generally rapid. In some of the fatal cases there is meningitis extending over the cerebrum, with atheroma. The second form of paralysis does not appear until last stages of convalescence from the pneumonia. Symptoms resemble diphtheritic paralysis. Sensation slightly affected, and paresis attacks lower extremities more than upper. Sphincters remain free. The probable cause of paralysis is toxic. Prognosis generally favorable. In a few cases a general weakness of nervous system remained. (*The Lancet*, Dec. 10.)

APHASIA AND PARALYSIS AFTER URÆMIC COMA.—Dr. Brunet (*Jour. de Méd. de Bordeaux*, Mch. 12, 1893) reports the case of a 43 year old non-luetic man who after an attack of uræmic coma developed aphasia, left facial paralysis, and right arm paralysis. On the exterior cerebral surface there was no special lesion other than slightly increased vascularization of the hemispheres. There was a slight depression of the left ascending frontal and parietal convolutions.

There was no hæmorrhagic extravasation. The arteries of the base were not atheromatous but those of the external face were so in patches. In Brunet's opinion the neurotic symptoms were due not to organic changes, but to an auto-intoxication by toxins retained in the blood of uræmics.

J. G. KIERNAN.

PSEUDO-HYPERTROPHIC PARALYSIS.—Dr. Pasteur exhibited a case of pseudo-hypertrophic paralysis in a youth, aged 17, before the Medical Society of London. The thighs were extremely small whilst the calves were typically enlarged. The wasted parts had diminished in electrical excitability. The case was remarkable in that it appeared to have become quite arrested in an early stage. The lad's intellect was good, father was an epileptic. (*Lancet*, Feb. 4, 1893.)

B. M. CAPLES.

METABOLISM IN PARALYSIS AGITANS.—Schæfer, in a careful examination of the excreta in a case of paralysis agitans, reaches the following conclusions: 1. The absolute quantity of nitrogen in the excreta was greater than that present in the food taken by the patient. 2. The average amount of tissue change for each kilogram of body weight was greater than the average observed in healthy men, leading a quiet life, and was also greater than in young men engaged in occupations which require great bodily exertion. 3. The increased metabolism was probably due to the great amount of work thrown upon the muscles by the involuntary movements of the disease. 4. The amount of phosphoric acid in the urine showed no change from the normal. 5. The chlorides in the urine were slightly increased. (*Archiv für Psychiatrie*, Vol. 14, No. 3.)

JOS. KAHN.

PATHOLOGY OF PARALYSIS AGITANS.—Dr. von Ketscher writes on this subject. He says the cases of paralysis agitans, with reference to their pathological anatomy, are divisible into two classes—those in which the examination has furnished negative results, and those in which various changes have been found in the nervous system, such as hyperplasia of the connective tissue and neuroglia of the spinal cord, alterations in the nerve tissue itself and vascular changes. Similar changes are described as occurring in the medulla and pons. Three cases of undoubted paralysis

agitans have been investigated by the author. The nervous system, central and peripheral, was examined, and in all three cases changes were found in both regions. The nervous structures showed atrophy, the ganglion cells of the brain were deeply pigmented and altered in form, the nerve fibres both in the peripheral nerves and in the spinal cord were degenerated, and had in some instances disappeared. The muscular fibres also were atrophied or degenerated. The neuroglia was thickened, especially around the vessels, and mostly in the posterior and lateral columns. The vessels also were altered, their walls thickened and there were miliary aneurisms and small hæmorrhages present. Similar changes, but slighter in degree, were found as senile changes in patients not the subjects of paralysis agitans. The author concludes with Borgherini and others that paralysis agitans is only the expression of an extreme and premature senility of the nervous system, and he is of the opinion that the primary changes are in the vessels, those of the nervous structure being secondary. (*Lancet*, March 25, 1893.)

B. M. CAPLES.

PARAMYOCLONUS MULTIPLEX.—Lemoyne reports the following case: Man aged 41, in good health, received a mental shock, very narrowly escaping being crushed by falling timber. For several days after accident mind was engrossed by recent peril; no sleep during first 72 hours; palpitation and pain in cardiac region. Slight tremor in all limbs appeared in a few days, soon developed into attacks of clonic spasms recurring with great frequency, increased by attention or emotion, could be induced by pricking or compressing the muscles. Amplitude and force of contractions gradually rose to an acme in which hands and fingers were contorted, fore arms convulsively extended, arms thrust forward or behind head, shoulders raised, knees adducted, neck arched backward. These clonic movements either ceased abruptly or by degrees, less frequent at night but often interrupting sleep; diaphragm affected, causing hiccough or panting respiration. Echolalia and "echokinesia" present in slight degree; latter happened especially when imitated movement was sudden and unexpected. When lying in bed lower limbs free from spasm, when standing or walking, if an attack supervened, titubation, extension of toes, and elevation of heels observed. Patient became a paranoiac with suicidal

propensity. The author believes this case is the first in which paramyoclonus has been associated with mental derangement and the only one in which echolalia and echokinesia have coexisted. The instantaneousness of the spasms, their absolute inco-ordination and the influence upon them of the patient's posture differentiate the affection from convulsive tic. He regards paramyoclonus, convulsive tic, and electrical chorea as varieties of the same neuro-pathic state. (*British Medical Journal*, Dec. 31, 1892.)

B. M. CAPLES.

PROGRESSIVE MUSCULAR ATROPHY.—In the *British Medical Journal* for January 28th is the following from Dr. Homen, describing a case presenting a combined form of progressive muscular atrophy originating from peripheral nerve injury. Patient's age, 27; in good health when accident occurred, fell asleep with right hand underneath ear and arm beneath body. On awaking found that he had wrist-drop and motor paralysis of the hand. At the end of the week regained slight power in the extensors. Some months later progressive atrophy commenced in the muscles of the hand, especially the thenar, then slowly extended to the forearm, shoulders, left forearm and hand and fibrillary contractions were observed in affected muscles. The pectorales majores showed only quantitative electrical changes and were not greatly wasted. No "tendon reflex" in upper limbs; major present. No sensory disorder at any time; small pieces excised from several of the wasted muscles exhibited great degeneration and atrophy in many of the fibers, the pectoralis being least affected. Slight hypertrophy induced in a few of the fibers. Homen's opinion is that the injury of the musculo-spiral nerve induced anterior polio-myelitis. Superadded to this was humero-scapular progressive muscular dystrophy. Etiological relationship between the dystrophy and central affection could not be determined.

B. M. CAPLES.

ARTHROPATHIC MUSCULAR ATROPHY.—Kahane, in a paper read before the Vienna Medical Club, gives a resumé of our knowledge of this subject. The clinical pictures agree to a great extent. In the majority of uncomplicated cases the atrophy is moderate, the reflexes and sensation are normal and there is no R. D. Loss of function is not always proportionate to the atrophy and *vice versa*. The prognosis is

usually good. Therapeutically, massage and electricity are of the greatest value. Three theories have been offered to explain this phenomenon. 1. Inactivity. Against this has been urged, 1, that the atrophy may show itself even if the inactivity has lasted but a few days, and, 2, that frequently in cases of central origin there is no atrophy even after paralysis of several months duration. 2. Anatomical lesions. Strümpell has assumed a myositis as the cause of the atrophy. This has not been proven as yet, although not improbable a priori. Changes have been found which would indicate a mild degree of irritation, which had spread by contiguity from the inflamed joint. 3. Reflex theory. This has Charcot for its especial champion but is as yet wholly problematical. In Kahane's opinion a combination of various factors is usually at work in the most of these cases. (*Wien. Med. Presse*, No. 50, 1892.)

G. J. KAUMHEIMER.

SENSORIAL ALLOCHIRIA.—Dr. F. Bosc (*Rev. Internat. de Biblio. Méd.* Jan. 25) concludes that allochiria exists every time the patient errs as to the side whence an impression is received. Allochiria may exist in all sensations. Allochiria is a simple phenomenon which may accompany disorders ordinarily unilateral or more or less pronounced on one side. It is not properly speaking a symptom. It does not depend directly on a lesion but upon such a distribution of it as may cause a change in the ordinary progress of sensation. Several causes may produce allochiria. Among the neurotics (Bosc's "pure hysterics") it may result from suggestion or spontaneously. Allochiria from cerebral lesions may be of two types, cerebral or medullary, in the first case it occurs from reception with lesions; in the second case it results from transmission. These divisions are, however, factitious. In one allochiria is even the cause of deviation and may be either medullary or cerebral. In the first case the deviation results from one side or the other of the spinal cord. In the other from one hemisphere to the other. But whatever be the seat of the lesion the result is the same. Perception of the sensation by the hemisphere to which it is not normally directed. Such passage of sensation from one hemisphere to another proves that there are communications between the symmetrical parts of the cord and brain. Clinical and imperfect anatomical investigations demonstrate such means of communication in the cord. The corpus callosum serves

the purpose in the brain. True allochiria must be distinguished from false allochiria due to partial sensory communication to the brain.

J. G. KIERNAN.

ALLOCHIRIA.—Bosc relates the following case. Man, aged 42. Had neurotic family history; personal history of alcoholic excesses; radials atheromatous; myotatic irritability exaggerated; pronounced mental enfeeblement; increasing dementia the only noteworthy symptom, until left hemiparesis without loss of consciousness occurred. Tongue and lower half of face were implicated as well as limbs. Perception of stimuli applied to any part of left half of body greatly retarded and localization of stimulus impaired. Motor paralysis complete in left limbs and left half of face; articulation difficult; vocal timbre altered. On applying painful stimulus to left arm, patient gesticulated as if suffering, quickly withdrew right arm and complained of pain in it at a part corresponding to the point of contact on the left arm and of acute cephalalgia. Analogous effects produced by pricking left lower limb, in addition thereto painful stimulus applied to left thigh sometimes referred to right leg and arm. Whenever left side of trunk was pricked patient cried out with pain in head and rubbed sternal region. Thermal stimuli only perceived as pain and were transferred to right side. Cutaneous sensibility of latter side unimpaired. Visual acuity and audition diminished on left side. Terminal coma set in three or four days later. Account of necropsy not given. This condition in which sensory stimulus received on one side of the body is referred to the opposite side was described by Obersteiner in 1881. (*Brit. Med. Jour.*, Dec. 31, 1892.)

B. M. CAPLES.

TETANY AS A SEQUEL OF PUERPERAL ECLAMPSIA.—Reported by Dr. Wheaton.—Labor normal, except convulsions which followed expulsion of placenta, 13 attacks in four hours. Patient comatose, respiration rapid and irregular, pulse 150, feeble but incompressible. Wet cuppings applied to loins and $\frac{1}{2}$ pint of blood removed; $\frac{1}{8}$ grain hydrochlorate of pilocarpine hypodermically; 20 grains choral, 1 drachm bromide of potassium per rectum. Cupping and pilocarpine injection repeated in an hour; profuse diaphoresis occurred, improvement commenced. Liquor ammoniae acetatis, 2 drachms every two hours was administered, also a purge and

enema. Third day—still unconscious; spasmodic attacks of rigidity of limbs noticed; pressure caused increased rigidity. This tetanic condition continued three days, gradually disappeared; consciousness returned; in three weeks convalescence complete. Tetany may be regarded as result of profound exhaustion of higher motor centers of cerebral cortex, whereby restraining influence is withdrawn from a lower stratum of cells, which thus come into action without regulation from higher centres. In case in point exhaustion of higher centres was due to repeated convulsions and its intensity marked by the long period of unconsciousness and absence of voluntary movement; also by the persistent high temperature (102°) which was probably due to unregulated action of lower heat-producing centers owing to exhaustion of higher controlling one. No treatment was ordered for the tetany except quinine and iron; being essentially a symptom of deficient action of nervous centres it required tonic treatment. (*Lancet*, Jan. 21, 1893.)

TETANY IN CO-POISONING.—Dr. A. Voss reports the case of a boy, 12 years old, who was asphyxiated by coal gas, and who presented a typical picture of tetany, including mechanical hyperexcitability of the muscles, trismus and facial spasm. Death took place by involvement of the muscles of respiration. Autopsy showed only a chronic intestinal catarrh. Tetany following various intoxications has been noticed before, as after ergotin, alcohol or chloroform poisoning. Frankl-Hochwart says in regard to prognosis: "The prognosis in children in whom tetany occurs during the course of other affections is not at all good. Intestinal troubles are most frequently met with." (*Deutsche Med. Wochenschr.*, No. 40, 1892.)

G. J. KAUMHEIMER.

THE "TIC" DISEASE.—Dr. Chabbert concludes (*Arch. de Neur.*, Jan., 1893) that under this title are comprehended not only movements of generalized nature, but also cases in which the spasms are localized. These last may originate in traumatism as well as heredity and may give rise to coprolalia (foul speech) or to "tics" of thought. In all heredity plays the principal part. It may be direct or similar or collateral and transformed. To the vesanias may be added as hereditary causes, alcoholism and even brain diseases. "Tic" disease may occur in early youth (4, 6 and 9 years) but

most often is post-pubertal. Its period of evolution varies. The movements due to it are rapid, systematized, coordinate and arrhythmic. Echolalia, echokinesia, coprolalia and thought "tics" may be found united in the same subject but these are usually isolated. Echolalia is the repetition of polysyllabic words clearly articulated. Echokinesia is the habitual repetition of movements familiar to the patient in connection with other words. They may occur alone or follow the words. Coprolalia may also accompany the movements or replace them. Often the will can check these.

J. G. KIERNAN.

URINARY TOXICITY AND EPILEPSY.—Drs. Voisir and Peron conclude that an auto-intoxication, shown in variations in urinary toxicity, (*Arch. de Neur.*, Jan., 1893) has an intimate relation to epileptic explosions. This view was enunciated by Meynert about two decades ago to explain the epileptic states.

J. G. KIERNAN.

CASE OF ALTERNATE HEMIANAESTHESIA.—Cases of alternating paralysis are not uncommon, but cases of alternating hemianaesthesia are sufficiently rare to warrant Dr. M. Allen Starr in presenting one which recently came under his observation. A policeman, previously healthy, awoke in the night and found himself paralyzed on the right side; subsequent recollections faulty, some fever, delirious, pains in head, sleepless, recovered sufficiently in three weeks to get up. Two months later appeared at clinic, walked without trace of paralysis, but not steady, afraid of losing balance; power slightly greater on right side, knee jerks exaggerated, no ankle clonus. Tactile sensibility about same on both sides of body, slightest touch of cotton immediately perceived and accurately located, but a difference in the sensation perceived on left side of face and right limbs from that on corresponding opposite sides. A needle may be thrust one-half inch into this area of alternate hemianalgesia without sensation of pain, though contact of needle is felt. A felon had run its course on the thumb of analgesic side and no pain experienced. Case was diagnosed as due to hæmorrhage into pons, because of sudden occurrence of symptoms, their considerable extent at first and gradual disappearance, absence of heart disease and specific history tending to exclude embolism and thrombosis. From a

study of anaesthesias in 26 cases, Prof. Starr draws following conclusions: 1. If in any case anaesthesia of one side of face occurs (not due to neuritis of trigeminus or cortical lesion), lesion lies in medulla or pons, in outer third of formatio reticularis; if situated high up (cephalad) in pons it will be on opposite side to anaesthesia, if situated low down (caudad) in pons or medulla, it will be on same side as anaesthesia. 2. If anaesthesia of limbs occurs (not due to cerebral lesion) lesion lies in medulla or pons, in inner two-thirds of formatio reticularis and on side opposite to anaesthesia, or in spinal cord. 3. If one side of face and limbs of opposite side are anaesthetic, lesion affects entire lateral extent of formatio reticularis and lies in medulla or in pons below point of union of ascending and descending roots of fifth nerve. 4. If face and limbs of same side, then lesion lies in brain at a point higher than junction of ascending and descending roots of fifth nerve in pons. It may involve entire formatio reticularis in upper pons or crus cerebri; it may be situated in posterior part of internal capsule; it may lie in centrum ovale, destroying radiation of sensory fibres from internal capsule; it may be in sensory area of cortex in which all these tracts terminate. (*Med. Record*, Feb. 11.)

THE CONSIDERATION OF THE KNEE JERK SYMPTOM.—Dr. R. M. Phelps gives the result of his investigation in an article in the *Northwestern Lancet* of December 1st. He summarizes the result of his investigation as follows: We have, in a hasty way, tried to indicate the leading points of significance in the knee jerk symptom. In the following table we have grouped into tabular form the variations here considered. *In health*: Absent in rare cases—never was present in these cases; sluggish in a good many—no cause known; exaggerated in a very few; seems to diminish in old age. *Exaggeration of reflex*: In neurasthenia—moderately; in chronic alcoholism—moderately to excessively; in general paresis—extremely so in 29 out of 54 cases; in epilepsy—in 60 per cent. of cases (Zerner). [My own cases about normal.] In spastic spinal paralysis—typically and extremely exaggerated; in multiple sclerosis—usually if lateral columns are affected (Bramwell); in tetanus, strychnine poisoning, etc. (Jamieson); in hysteria—20 per cent. of cases have ankle clonus (Ziehen). *Absent*

or diminished: In locomotor ataxia—absent, with rare exception, usually lost early; in general paresis—absent in 12 cases out of 54 noted; in peripheral neuritis—diminished or lost; in myelitis—usually modified or abolished (Ranney); in spinal meningitis—usually lost, unless lumbar region be unimpaired; in diabetes—sometimes lost; in cerebellar lesions (Ferguson). *Unequal*: After apoplexy, also emboli or other lesions; injury to hip or to nerve in leg—possibly; in general paresis—in 12 out of 54; in other insanities—with obscure meaning; possibly from rare localized injuries to cord. In conclusion, then, what have we found? We have found the knee jerk in healthy people differing greatly, occasionally being found completely absent, and occasionally extremely exaggerated. We have also found that it varies in the same person with all strong sensations and emotions. This is somewhat discouraging at the outset. Further study, however, shows it to be fairly steady in the same person, if healthy, and that any change in it is significant, if the constant variation from normal is not; also, that the extremes of variation are almost invariably of significance in either case, that significance to be interpreted only by the context furnished by the accompanying symptoms. (*Minnesota Hospital Bulletin.*)

VARIETIES OF VERTIGO.—Dr. Miles speaks of five kinds of vertigo. 1. Vertigo dependent upon intracranial disease, chiefly tumor and pachymeningitis, not including the disturbances of equilibrium arising from disease of cerebellum or corpora quadrigemia. Most frequent general symptoms, headache, nausea or vomiting and vertigo. Most cases of brain tumor originate in membranes of this viscus; the trigeminal nerve has wide distribution in dura; and intense localized irritation of its branches gives rise directly to pain and indirectly to nausea, vomiting and vertigo. 2. Ocular vertigo, most commonly due to serious disorders of refraction, to paresis or spasm of the ocular muscles, or to excessive retinal irritation. Partial tenotomies and exact corrections or recorrections with glasses have been found efficient. 3. Vertigo, due to disease of bloodvessels, as arterial sclerosis from alcohol, syphilis, gout, old age, etc. Diagnosis of these cases is to be made by excluding carefully ear, brain, eye, severe local disease anywhere, etc., but chiefly by careful examination for arterial or arterio-

capillary fibrosis and accompanying conditions of heart, kidneys, liver and other organs. Reedy, resisting arteries, excessive arcus senilis, changes in pulse-rate, reduplicated or changing cardiac sounds will be present. 4. Vertigo which has its source in state of blood, as anaemia or hyperaemia, lithaemia, and a large variety of toxaemias and from direct action of drugs and poisons. 5. Vertigo dependent upon intense irritation reflected to labyrinth or brain from more or less distant regions of the body—commonly classed as nasal, pharyngeal, laryngeal, gastric, intestinal, hepatic, uterine, ovarian, etc. The reflex origin of these vertigos is often doubtful; they are more probably due to a toxic state of the blood, which is produced in various ways.—(*Medical Record*, Feb. 18. '93.)

MIGRAINE.—In *The Lancet* of Jan. 14, Dr. A. Wallace describes a personal experience of this malady extending over sixty years. This diathesis is gouty, although he has never had an acute attack. In most cases of the disease Dr. Wallace lays down the proposition that “migraine is due to defective or insufficient excretion, partly of the liver but mainly of the kidney.” Patients are sallow, bowels are costive, urine before and during attack is limpid with low specific gravity, and after attack highly colored by lithates. Previous to attack patients generally complain of backache and are indisposed to exertion and irritable: afterwards are cheerful and energetic. Two opposite conditions may cause an attack: (1.) where abdominal and eliminating organs are less able to perform work than usual, and (2.) where a greater onus is thrown upon these organs than they can for the time being perform. Under cause 1 are classed check of skin action, exposure to cold, vitiated atmosphere, tobacco, malt liquors, tea and other articles acting as economizers, insufficient inhibition of fluid, fatigue, etc. Under cause 2 may be mentioned over-exertion of body and mind, over eating, or indulgence in saccharine or fatty foods, etc. Prevention may be secured by properly exercising mind and body, and giving careful attention to dietary and regularity of living. A tumbler or two of hot water containing mineral salts taken in the morning while dressing is beneficial. To abort an attack dietary should be spare and contain much fluid. Slight attacks often yield to caffeine or bromide of potassium.

OXALURIA AND ITS RELATIONS TO CERTAIN FORMS OF NERVOUS DISEASE is the title of a paper read by Dr. I. Adler before the N. Y. Neurological Society, Jan. 3, in which he stated that oxaluria, as an independent type of disease, does not exist. Most vegetable foods contain oxalic acid, and nearly all taken into the system reappears in the urine, some, perhaps, in the fæces. It is also probable that the acid may originate in the course of normal metabolic changes. In examining urine for oxalic acid it is of the utmost importance to consider its other ingredients as well, particularly urea and uric acid. In discussing the paper Dr. Herter said he was not prepared to believe there was no such thing as pathological oxaluria, but was inclined to think that in cases of defective digestion the carbo-hydrates are transformed into oxalic acid. Dr. Heitzman also disagreed with Dr. Adler and felt convinced that there is a condition of the system wherein the amount of oxalic acid excreted by the urine is far in excess of that taken in with the food. Dr. Rockwell was interested in noting the frequency with which oxalate-of-calcium crystals had appeared in the urine of certain neurasthenic cases associated with disordered heart action. In summing up Dr. Starr stated that we cannot study neurasthenic conditions carefully without reaching the conclusions that the trouble lies in the chemistry of nutrition and that the statements in Dr. Adler's paper, based upon careful quantitative analysis of the urine, should be regarded as very valuable. (*New York Med. Jour.*, Jan. 28.)

ALCOHOLISM.—Dr. E. Schmid summarizes his observations and reflections upon alcoholism in a paper read before the New York State Med. Ass'n, Nov. 1892. The intoxicating part of alcoholic beverages is ethyl-alcohol and in ten glasses of beer for example, there is half a glass of this poison. This substance enters the blood and is carried to the various organs, first to the brain. It is thought that here the action is molecular in character. When protracted indulgence is practiced the chemical affinities of the nerve elements are paralyzed, and finally, their life destroyed. The action of the heart is quickened and tension of arterial walls lessened. The blood is *not* changed. Small doses of alcohol stimulate secretion of gastric juice, but large amounts delay or actually suspend it. Competent observers maintain that any quantity taken during digestion produces this effect. Tissue

change is decreased by alcohol; excretion of carbonic acid lessened; large doses lower temperature of body; great expenditure of warmth is caused by dilatation of vessels of skin, paralysis of muscles, and by reduction of the oxidizing processes in the tissues, Alcohol only transiently benumbs feelings of weariness and relaxation surely follows. It is, therefore, only indicated medicinally in that pathologic condition approaching collapse with frequent and small pulse. Long continued doses in milk or water given as a tonic cause chronic irritation of the mucous membrane of the stomach, and often cirrhosis of the liver. In children we notice clearly how powerfully alcohol attacks the nervous system, not infrequently producing convulsions, epilepsy or chorea. Imbecility can often be traced to the imbibing of alcohol by the nursing mother, but the worst effect upon children is paralysis of the moral power. Heredity entails love of drink upon the offspring of intemperate parents or, frequently they are injured mentally. Plutarch said, "Ebrii gignunt ebrios," and Darwin states that diseases inherited from drunkards descend to the third and fourth generations, until, finally, the family dies out. A specialist in childrens' diseases observed ten families of drinkers and ten of temperate parents for a period of twelve years. The former produced 57 children of whom but ten showed normal development of body and mind: of 61 children of the temperate families 50 were normal. Dr. Schmid closes his paper by urging that steps be taken petitioning the legislature to pass laws for the legal commitment of drunkards, and erection of suitable buildings dedicated to their restoration.—(*Medical News*, Jan. 28.)

RELATION OF GENITAL IRRITATION TO NERVOUS AND MENTAL DISEASES.—In a paper read by Dr. L. C. Gray before the N. Y. Medical Society, he maintains that there is no proof that genital irritation is capable of causing any organic disease of the nervous system, but may act as an exciting or aggravating factor. In mental diseases relief of genital irritation has, in his opinion, proved a much more valuable method of treatment than generally accredited. Of the two classes of mental diseases—organic insanities and psychoneuroses, only in latter relief of genital irritation is of value. His conclusions were as follows: 1. That there is no proof that genital irritation can cause nervous or mental disease, except in the predisposed individual. 2. That proof is not

yet absolute that genital irritation can produce nervous or mental disease, even in predisposed individual. 3. That there is undoubted proof that relief of genital disease will often relieve certain nervous diseases, such as migraine, hysteria, epilepsy, simple nervousness and hallucinatory insanity.—(*Med. Record.*)

INTERMITTENT DISTURBANCE OF LOCOMOTION DUE TO ARTERIAL DISEASE.—Dr. A. Elzholz reports the case of a man, aged 57, who had chronic nephritis and sclerosis of all accessible arteries. He walked with feet wide apart, jumping and swaying. After walking for some time, tremor of the legs set in. Sensation and the motor strength of the extremities were intact. Autopsy showed arterio-sclerosis of the muscular arteries of the lower extremities. Another patient was sixty years old, and claimed to have had his trouble for over 20 years. It consisted in rapid fatigue of the muscles of the extremities, which were flabby and atrophic. All accessible arteries were convoluted and hard. Co-ordination and reflexes were normal, motor power much reduced. These symptoms were less after prolonged rest. Elzholz attributes these troubles to the endarteritic process. Charcot sees in this intermittent lameness the prodrome of gangrene, either senile or diabetic. The only palliative is rest. (*Wien. Med. Presse*, No. 40, 1892.)

G. J. KAUMHEIMER.

SYMMETRICAL GANGRENE.—Kornfeld read a paper on this subject before the Vienna Medical Club. He would restrict the use of this term to such cases where absolutely no other demonstrable etiological factor exists and where we can reasonably assume a tropho-neuroses as the cause. It cannot be applied to accidentally symmetrical gangrene due to cardiac, renal or vascular lesions, thrombosis, severe infections, disturbances of haematopoiesis, ergotism or acute decubitus. For this reason a number of the reported cases must be excluded. He then reports a case of advanced tabes. The pulse in the abdominal aorta and vessels of the lower extremities was full and visible to the eye, in the upper extremities it was small and thready. On admission the matrix of the nails and an area $\frac{1}{2}$ cm. around them on the first four toes of the right foot were dark blue, shrivelled and cold. On the left foot this was the case on the great toe, the others were cyanosed and blue. Death on third day in hospital.

Autopsy showed degeneration of the posterior columns, and bilateral peroneal neuritis. There was no other lesion which would explain the gangrene or the difference in vascular tension.—(*Wien. Med. Presse*, Nos. 50 and 51, 1892.)

G. J. KAUMHEIMER.

SECONDARY MALIGNANT NEUROMA.—Prof. C. Garrè, from an exhaustive study of this subject, reaches the following conclusions: Multiple neurofibromas, as phenomena of a congenital elephantiasis neuromatodes, show a remarkable disposition to sarcomatous degeneration. This occurs in at least one-eighth of all cases. The cause of this must probably be sought in the congenital pathological condition of the nervous system, neuro-fibromatosis, as it is an integral property of this affection to develop into sarcoma by means of cellular proliferation. Between the neuro-fibroma and the sarcoma of the nerves can be found a large number of transition forms, so that the exact boundary between malignancy and benignity cannot be accurately drawn, either clinically or histologically. The neuro-fibroma may become sarcomatous at any stage. Among the predisposing causes traumatism probably has the first place, leading to increased proliferation of cells; injuries of various kinds, insignificant irritations frequently repeated, or operations may start the abnormal development. The clinical course of secondary malignant neuroma differs considerably from that of primary neurosarcoma. The latter do not differ from the fascial sarcoma except in localization, they rapidly invade the surrounding tissues and cause early and extensive metastases. The neurosarcomas arising on the basis of an elephantiasis congenita neuromatodes usually retains its fibrous capsule for a long time, its recidivation is usually local and multiple and only in the last stage does it infiltrate the surrounding tissues and cause metastases. Virchow's recurring neuromas with local malignity are a variety of the secondary malignant neuromas; the local malignity is a transition stage. The histological character is most often that of the spindlecelled fibrosarcoma. Degenerative changes, leading to the formation of cysts and cavities, are of very frequent and early occurrence. A formation of young nervefibrils, such as Krause claims for malignant sarcoma, takes place, but seldom. The nerve fibres entering the tumor disappears very soon. Neurosarcoma may assume the character of a teratoma by the participation of

heteroplastic elements (in Garrè's case ciliated epithelium) in the formation of the tumor. (*Wien. Med. Blätt.*, No. 47 to 50, 1892.)

G. J. KAUMHEIMER,

DIAPHRAGMATIC NEURALGIA AND SPASM CAUSED BY INFLUENZA.—Dr. Ferd. Kapper reports the case of an officer to whom he was called at the time the epidemic was at its acme. Among other things he complained of pain at the lower edge of the chest all along the insertion of the diaphragm, as well as in both sides of the neck, radiating toward the shoulders and back of the neck. All these parts were painful to the touch. The respiration was dyspnoeic, painful and superficial and moderate hiccough was present. The next day hiccough had increased, and became especially annoying when the voice was used. It was accompanied occasionally by yawning or vomiting. On the morning of the second day the temperature had fallen. The hiccough was intense, 100 per minute, with occasional intervals of 10 minutes. On the fifth day the frequency had decreased to 60 per minute with longer intervals of rest. The spasm gradually became slower, the intervals of rest longer, and the pains at the insertion of the diaphragm and along the course of the phrenic nerves less and disappeared at the end of two weeks. The Pfeiffer-Canon bacillus was found in enormous numbers in the sputum. Methodical counting, impeded expiration, ice, compression of the thorax, pressure on the phrenic nerves, as well as narcotics, were tried in vain. Epispastics and hot applications gave some relief. Cure resulted from faradization of the phrenic nerves, the diaphragm and the epigastrium after the administration of antipyrin. An explanation of the pathological process is not possible, but the connection between the phrenic pain and spasm and the influenza is undoubted. (*Wien. Med. Wochenschr.*, No. 37, 1892.)

G. J. KAUMHEIMER.

A REVIEW OF THE PATHOLOGY OF PUERPERAL ECLAMPSIA.—Dr. Moser thinks that one of the principal reasons why the morbid anatomy of eclampsia, and the etiological deductions therefrom, have given rise to so much discussion, is because the post mortem appearances differ in almost every cadaver. We are endeavoring to find the pathology of a disease characterized clinically by convulsions and coma occurring in pregnant women. The author is inclined to believe that

there are several etiological factors concerned in its causation; that it is not a distinct disease; that it has no characteristic symptomatology and pathology. The most constant pathological lesion is the presence of fat in the pulmonary circulation. Virchow regards these emboli, which occur in such quantities as to interfere with the pulmonary circulation, as the cause of the œdema which is such a frequent accompaniment. In some cases under observation in Virchow's laboratory the characteristic "sausage-shaped plugs" of fat filling the lumen of the vessels could be easily demonstrated under the microscope. In no case were they absent. The author believes with Virchow that they are the effect produced by the convulsion. He thinks that the pathological changes give no clue to its etiology, and that we should look for more than one etiological factor.—(*Med. Record*, Mch. 25, 1893.)

B. M. CAPLES.

ON PAROXYSMAL TACHYCARDIA AND ITS RELATION TO GRAVES' DISEASE.—Dr. Dill has notes of a number of cases in the *Lancet* of Feb. 4th. He thinks the patient is usually extremely nervous; apt to suffer from digestive troubles; almost invariably incapable of work. Undue strain of body or mind, rheumatism, and syphilis are the antecedent conditions of most of the recorded cases. Many have no previous history. In some instances the paroxysmal state of tachycardia had passed into a persistent one. He describes another class of cases, arising very often from similar causes and following a similar course, in which the tachycardia is persistent, but with paroxysms of palpitation and in which the persistent tachycardia during the intervals between the paroxysms may not be subjectively evident to the patient. To distinguish these two classes of paroxysmal tachycardia he adopts the names "remittent" and "intermittent." Describes the third class of cases presenting precisely the same symptoms, which are evidently atypical cases of Graves' disease. The only absolute constant symptom of Graves' disease is tachycardia, but Charcot is authority for the fact that in some cases of Graves' disease the tachycardia is paroxysmal and intermittent. The following is a note of a case: Patient had severe fall upon left side. For past twelve months unable to work. Complained of violent paroxysms of palpitation which prostrated him completely. Heart very rapid in the interval, although it

gave him little discomfort. Was extremely nervous; wasted considerably, and suffered from flatulent dyspepsia. Arterial tension increased. For eight months rate of pulse between the paroxysms averaged 135.5, never to author's knowledge under 120. Gradually declined as he got better until it became normal. Suffers from occasional paroxysms of palpitation. Among other theories the pathology has been attributed to recurrent irritation of the cervical sympathetic, to paresis of the vagus, to lesion of the myocardium or of the cardiac nerves or ganglia and to a central nervous lesion. The author thinks the last to be the correct explanation. Digitalis and strophanthus appear to have no effect. Quinine, iron, arsenic and belladonna are very unreliable, and the usual nerve sedatives and stimulants do not appreciably influence the course of the disease. He thinks the treatment to which attention should be directed is complete rest from work or strain both of body and mind, pleasant and unexcitable surroundings. General health must be carefully watched; intercurrent discomforts treated as they arise.

B. M. CAPLES.

ERYTHROMELALGIA.—What may almost be considered a *symposium* upon this very rare disease recently took place at the Charité Society in Berlin, three cases being brought forward by Gerhardt, Senator and Bernhardt. As the patient introduced by the first was the most recent, the case may be given in fuller detail. A seamstress, aged 44, had formerly suffered from palpitation and fainting. In the night of March 21 she was suddenly seized with very severe pains in hands and feet, which, notwithstanding different kinds of treatment, continued until the end of June, when the patient was shown. Simultaneous with pain, occurred an extraordinary redness of the fingers and toes, affecting all these except the left thumb, which remained free. Movement was very unpleasant to the patient, and she mentioned that such an act as cutting the nail caused severe pain, and contact of the toes with the bedclothes was so painful that she desired to lie under a cradle. All the various remedies were tried. Beginning with arsenic, a slow improvement took place, but when having a galvanic hand bath, a severe attack of pain came on, and this time the left thumb was involved. Morphine injections and antipyrin relieved the discomfort. Later on, in another attack, there was pain in

the tongue and disturbance of speech. Since then the affection had improved very much in the arms, less so in the lower extremities. The terminal phalanges were now somewhat thickened, but this was not so much due to the bulging forward of the matrix of the nail as to thickening of the edge of the skin on the nail. The finger pulp was much more thickened in relation to the nail-bed, and showed a changing red appearance, which became almost bluish-red during the attacks of pain. The state of the nutrition was not altogether favorable; and the examination of sensibility showed that heat and cold were slowly perceived, and that there was a slight degree of diminution of sensation. The secretion of sweat was increased in the affected parts.

The case shown by Professor Senator was a man, 44 years old, hitherto healthy, who was suddenly taken ill with neuralgic pains and weakness in the arms, and then in the feet, on which an almost symmetrical erythematous redness of the skin of these parts supervened. The pain gradually ceased, while the erythema remained in varying degree and got worse during two summers, coincident once with increased turgescence of the hands. Upon the reddened places over the individual finger-joints reddish nodules showed themselves during the course of the affection, of which one after another disappeared only to appear in other places. Dr. Bernhardt's case was an unmarried lady, 50 years of age, who had suffered since 1887 from pain, redness, and swelling in the hands and feet. In contrast to the others, she was worse in cold weather. There was disturbance of sensation. Erythromelalgia was first described as an independent disease by Dr. Weir Mitchell in 1872, from six cases observed by himself and five reported by Graves, Paget, and others. He showed that it chiefly affected men, and began usually with slight febrile symptoms, and severe pain in the feet, more rarely in the hands. It was increased by the upright position and by warmth, and was therefore worse in summer; the horizontal position and cold relieved it. After a time a congestive redness of the affected parts set in, sometimes very marked, with visible swelling of the veins, pulsation of the arteries, and increased temperature in the affected parts. The disease runs a very chronic course for many years, with alternating improvement and relapse. Its actual termination is not yet sufficiently known, as the patients have gone from under observation, and the affection is so rare that few opportunities are given of watching the

case to the end. In 1880, Lannois was able to add only five cases to the eleven reported by Dr. Weir Mitchell; and within the last twelve years only four more have been added. The redness and swelling depend upon a hyperæmia from active dilatation of the blood vessels, a process depending on paralysis of the vaso-constrictor nerves—an angio-paralysis, belonging therefore to the class of vaso-motor neuroses. Anatomically it resembles chronic hyperæmia or erythema, and it is probable that these cases were classed under the term chronic local or diffuse habitual erythema. Its marked symmetry and other points suggest its central origin. It is the opposite condition to that described by Raynaud under the name of symmetrical local asphyxia of the extremities, or local gangrene, where there is ischæmia due to spasm of the vessels. This is curiously enough commoner in women than in men, the reverse of erythromelalgia. The treatment is unsatisfactory, although there is a case recorded by Duchenne of improvement after the faradic current. (*Berlin. Klin. Wochenschr.*, No. 45, 1892, *The Practitioner*, Dec. 1892.)

NEUROTIC ECZEMA.—Dr. Barham reports the case of a female 55 years of age who had an eruption situated on the lower two thirds of the fore arms and legs. It was rather more distinctly shown on the extensor than on flexor surfaces and on upper surfaces of hands and feet is symmetrical. The eruption is characterized by patches, circular or round in shape, composed of vesicles or papules with intervals of healthful skin. Patches show all stages of inflammation from unbroken vesicles and papules to raw exuding surfaces or infiltrated and covered with fine crusts or even scales. Each patch is limited to the line of papules or vesicles and the distinction between healthy and diseased skin is sharp and absolute. At all stages of the disease the pruritus has been intense. In the second case patient was nervous and irritable, suffered from constipation; eruption located on dorsal and interdigital spaces of fingers and on back of each wrist. Between fingers skin is sodden but inflammation is sharply defined at edge of patch. On back of each wrist is a large sharply defined patch, moist and inflamed, the edges composed of vesicles and papules. Patch is infiltrated and the pruritus is excessive. Several other cases are reported and in all these the most striking peculiarity is the symmetrical disposition of the lesions; in many cases the symmetry is ab-

solute, in others approximate but in every case corresponding parts of the body on each side are found to be affected. The eruption tends to attack localities not as a rule liable to eczema in its primary state, that is, the extensor surfaces. Arrangement of lesions differs markedly from that usually observed in eczema. The lesions are not scattered indiscriminately over affected area but are grouped into patches more or less circular. The periphery remains distinct, sharply defined and absolute at all stages; spread of eruption never effected by gradual extension of area of diseased patches but by formation of new lesions or patches in every respect retaining characteristics of older ones. Dissolution of patch is accomplished not by gradual shrinking of the diseased area but by degrees of inflammation. Original area remains same in extent, eruption has tendency to frequent relapses. The pruritus is most intense. Previous mental worry or nervous exhaustion of longer or shorter duration, functional irregularities, chronic constipation, exposure to heat and cold were noted in most of these cases. The author thinks the eruption the result of reflex irritation, whether this irritation is an actual inflammation he is not prepared to state, but in results it is practically the same. In regard to the sensory nerves their predisposition is shown by the intense itching in the affected area. He concludes that there is a variety of eczema due to a nervous disturbance which may be recognized by the following characteristics: grouping of lesions in circumscribed patches sharply separated from adjoining healthy skin; symmetry of eruption; preferences for extensor surfaces of extremities; absence of peripheral spreading or contraction of the separated patches; that the nervous disturbance is a perverted functional action of "trophic centers" in the cord; and probably in some cases a peripheral neuritis; that reflex irritation from various functional irregularities, mental anxiety, neurasthenia, etc., are important predisposing factors. — (*Medical News*, March 25, 1893.)

RHYTHMICAL ROCKING MOVEMENTS IN CHILDREN.—At a meeting of the Clinical Society of London, Dr. Hadden exhibited two cases of rhythmical rocking movements in children. One was an intelligent little girl of three years and nine months who had swaying movements of the trunk and lower limbs when standing or walking. Movements dated from the age of one year, when child was observed to

move body from side to side when piano was played, apparently keeping time. The second was an intelligent female child aged one year and nine months, who had rhythmical movements of alternate flexion and extension of the lower part of the spine with flexion and extension at the hips and knee joints. Movements had been observed for five months and no cause for them could be ascertained. They were only observed when the child was sitting down. (*Lancet*, Dec. 3, '92.)

DEATH BY ELECTRICITY.—Dr. Clowes reports the following case: An employe of an electrical supply company was engaged in making connection and while working in the surface box was observed to fall to one side as if in a fit. Left hand was found attached to the connecting wire; wire immediately broken and when released gave a loud sigh, fell forward, gave no further movement or sign, when seen five minutes later heart and respiration had stopped. The current was about two hundred volts. Post-mortem, the vessels of the scalp, meninges of the brain and brain substance were congested and full of liquid blood and the surface of the white substance when cut across presented a punctate appearance. The lateral sinuses were full of liquid blood and the lateral ventricles contained a full amount of cerebro-spinal fluid. Mucous surface of larynx, trachea and bronchi was congested and lungs loaded with dark blood, heart completely empty. There was a deficiency of blood in the large vessels; liver much congested and a dark red color; spleen large and gorged with blood; kidneys large and congested; bladder contained 8 oz. of highly albuminous urine. A marked feature of the examination was the complete fluidity and dark color of the blood, not a clot being discovered in any part of the body. Blood remains fluid on being kept. Medulla oblongata and amido-myelin coagulated. (*Lancet*, of Dec. 3, 1892.)

FUNCTIONAL TORTICOLLIS, DEPENDENT UPON OCULAR MUSCLE PARALYSIS.—Nieden reports a case in which torticollis has been induced by paralysis or paresis of one or more ocular muscles and consequent diplopia. To correct the latter symptom the oblique position of the head is assumed and kept up. His patient was a lad aged 11, in whom the torticollis had been noticed at the age of five and had

gradually become a constant condition in spite of treatment by various apparatus. There was marked defect though not complete paralysis of left superior rectus without noticeable limitation of movement of left eye up and in. The eye deviated outwards and downwards and this deviation was said to have come on after a convulsive attack in early childhood. Correction of the strabismus by operative measures was speedily followed by improvement and eventually by complete cure of torticollis. (*British Medical Journal*, Dec. 31, '92.)

PRODUCTION OF CRAMPS BY FARADISM.—Babinski reports his experience of the action of faradism in cholera patients chiefly, but also in others. The cramps produced continue after the current is removed and present the same characters as those developed spontaneously. Can also be evoked in acute peritonitis, lead poisoning, alcoholism, peripheral neuritis, less frequently in tabes, spastic paraplegia, and functional disorders of the nervous system. The condition induced is considered of the nature of a true cramp and not analogous to the muscular stiffness in Thomsen's disease, or in the myotonia acquisita of Talma. (*British Medical Journal*, Dec. 31, 1893.)

VERMINOUS 'PSEUDO-EPILEPSY.—Dr. Girat (*L'Union Méd.*, Nov. 12, 1892) reports a case of epilepsy under this title in which the use of a tædifuge caused cessation of the attacks, but some days before the expulsion of a tape worm. This indicates, in Dr. Girat's opinion, that the movements of the worm were chief exciting factor.

J. G. KIERNAN.

CICATRICIAL COMPRESSION OF NERVES.—Charcot, (*La. Trib. Méd.*, Dec. 15, 1892.) reports a case in which a man who had had a burn in the centre of the fist presented a cicatricial compression of the anterior branch of the cubital nerve, determining a remarkable dissociation of sensibility. As in syringomyelia tactile sensation remained intact while thermic sensibility was abolished in the territory supplied by the affected nerve. When the cicatrix was removed by operation, thermic sensibility gradually returned. This fact shows, according to Charcot, that the cause of dissociation of sensibility does not necessarily reside in the spinal cord. This dissociation also exists in certain dermatoses, so that it can be said clinically

that there exist special peripheric apparatuses for each mode of sensibility. The question of neuritis could not be raised since in a fortnight after the operation thermic sensibility was complete. Charcot would explain this dissociation of sensibility by the claim that touch was a more highly developed special sense than the thermic sense, which might disappear without the higher sense being affected. Gley could not agree with Charcot that thermic sense should be accepted as lower than the touch sense. All animals, even the amoeba, were susceptible of temperature variations. Charcot's claim refuted itself; the last powers acquired in evolution were the first lost in disease.

J. G. KIERNAN

MYOSEISM.—Durant and Klippell describe (*Revue de Med.*, Oct., 1892) a neurosis differentiated from other hereditary neuroses by a movement to which they apply the above designation. This is a jerk occurring at the moment of voluntary movements. The symptoms of evolution of this new neurosis in its first period are: Onset at 30 to 35 years of age by gastralgias, cramps and lancinating pains in the lumbar regions. In the second period, myoseism, the special symptom of the neurosis, appears. It is characterized not by a trembling or an ataxia but by the repeated stoppages occurring in the course of muscular contractions, and transforming the uniform movement into a jerky state. Romberg's sign, fibrillary chorea, normal electrical reactions, jerky speech, pseudo-nystagmus (occurring only when the eyes move) and subjective troubles (cramps, in extremities, especially legs, anæsthesia) occur during this period. In the third period there added to these described trembling of the muscular masses, jerking of the tendons, great weakness, anæsthesia of the muscular sense and amaurosis. These results are based on the study of four cases in the same family (three brothers and one sister). The affection had been ascertained to be present in the mother and maternal aunt.

J. G. KIERNAN.

THE CHOREIC MOVEMENT.—Dr. H. C. Wood has shown by experiment that section of the cord does not arrest choreic movements either on the upper or lower segments of the body. Other experiments lead him to conclude that there are either inhibitory spinal centers or that the spinal motor

cells are inhibited by peripheral impulses. He holds that quinine is a stimulant and atropine a depressant of spinal action. From this he assumed that if chorea is due to weakness of the spinal inhibitory centers quinine would strengthen the centers and so check the movements. Experiments upon dogs confirmed this view. He has relieved choreic movements in a child by cinchonizing it and intends continuing the use of the remedy to test its value.—(*Jour. Nervous and Mental Diseases*, April 1893.)

NERVOUS DISTURBANCES AFTER REMOVAL OR ATROPHY OF TESTICLES.—Dr. C. H. Hughes reports several cases of insanity and hypochondria that have come under his observation in which disorder resulted from removal or atrophy of testicles. Concerning Weiss' theory that the nervous disorders due to the loss of the tonic of the seminal secretion the author thinks there are other factors, such as the dyscrasic changes that made operation necessary and the after effects of the operation itself. (*Alienist and Neurologist*, Jan., 1893.)

THE NEUROPATHIC CONSTITUTION, EDUCATION AND MARRIAGE IN RELATION TO NERVOUS DISEASES.—The neuropathic constitution, according to the author, manifests itself by nervous instability and defective innervation of the organic functions. It checks normal development and predisposes to degenerative changes in nerve elements. These defects in the structural elements of the nervous development are hereditary, the predisposition being often derived from defective nutrition, bad habits or bad education, which have lowered the normal standard of health. The author condemns the modern high pressure of education and especially the nervous tension and excitement with which the work of the age is carried on. Concerning marriage and education the author seems to imply that there should be some restrictions in regard to the present liberty allowed people in entering into the marriage relation. Concerning the education of children, he holds, that in place of the age of the child being a criterion of mental strength and capacity, that the child's body weight should determine this. When children fall below certain physical standards there should be a reduction from the amount of mental work required of them. (*Medical Herald*, March, '93.)

THERAPEUTICS.

THE CHEMICO-PHYSIOLOGY OF SULPHONAL.—In *The Practitioner*, for Dec., 1892, Dr. W. J. Smith gives results of personal experiments with sulphonal made in the body of the dog. From these he infers that the drug does not affect tissue change. Three grammes, when given in complete solution, always yields some unaltered sulphonal in the urine of the dog, also in man. Jolles has found that in man part of the sulphonal is oxidized to sulphuric acid, but Dr. Smith has not detected this in the dog even after large doses of the drug. As but a small part of ingested sulphonal escapes change, the question arises, what becomes of the remainder? Kast states that it is eliminated in the form of a highly soluble organic compound, probably a sulphone acid, but the author's investigations do not confirm this conclusion. He presents two probabilities: (1.) Sulphonal may split in the same manner as do some of its derivatives, namely, the ethylsulphone group may be set free in the form of ethylsulphonic acid. (2.) When the ethylsulphone group is split off the ethyl portion may be oxidized and then the very stable sulphonacetic acid would be formed. Experiments with ethylsulphuric acid demonstrate that it passes for the most part unaltered into the urine, the sulphuric acid of which is only slightly, if at all, increased in amount. As the potassium and sodium salts of ethylsulphonic acid are almost insoluble in absolute alcohol an attempt was made to recover the potassium salt from the alcoholic extract of evaporated urine by treating this with absolute alcohol. The sediment refused to crystalize, the extractive substances present causing it to yield a yellow, syrupy sulphuretted substance which could not be purified sufficiently for analysis. Experiments with sulphonacetic acid gave the same results as far as absence in increase in amount of sulphuric acid is concerned, but differed in that the salt could be easily recovered from the urine. Dr. Smith's final conclusion is, that if sulphonacetic acid is the chief product of the metamorphosis of sulphonal, its presence in the urine could easily be demonstrated. The examination, however, of a large quantity of sulphonal urine gave no trace of barium salt, and, consequently, sulphonacetic acid cannot be the principal product formed from sulphonal during its passage through the body of the

dog. The author's experiments, on the contrary, seem to indicate indirectly, that the sulphonal splits in the system so as to yield ethysulphonic acid and this is eliminated unaltered in the urine. Several tables and chemical formulas are given in Dr. Smith's article, adding to its interest.

TRIONAL AS A HYPNOTIC.—Brie (*Neurologisches Centralblatt*, Nov. 24, 1892.) Trional is a white powder, similar in appearance to suphonal, sparingly soluble in cold water, more so in hot water, and readily soluble in alcohol and ether. It has a slightly bitter taste, which is not often objected to by patients. The dose is from one to three grammes given about half an hour before bedtime. Brie tried it on forty-two patients. There were eleven cases with mental depression, melancholia and conditions of hypochondria with insomnia. The drug acted well, without bad after effects, in every case, producing from seven to nine hours of sleep. Four patients suffered from melancholia agitata. They were restless, moaning and crying day and night. The result was excellent; one patient required one gramme, two, two grammes, and one three grammes to produce sleep. There were ten cases of maniacal excitement in one of which the drug failed. The patient vomited, so the use of the drug had to be discontinued. Whether the gastric irritation was due to the trional or to other causes could not be determined. Other bad effects were not noticed. In eight cases in which hallucinations were the prominent symptoms trional always proved satisfactory. In the remaining cases of senile dementia, organic brain disease and paralytic imbecility the results were good. Trional was also used in a number of acute surgical cases in persons of normal mental condition, but failed to produce sleep. As a result of his observations the author is well pleased with the drug. He considers it one of the best of the hypnotics. He believes that it will take the place of sulphonal and other hypnotics because it is practically tasteless, is easily taken, acts quickly and seldom shows bad after effects. It is indicated in simple insomnia as well as in restless and excited conditions of the insane.

JOS. KAHN.

TRIONAL AND TETRONAL.—Dr. Mabon reports his use of these new hypnotics and sedatives at the Utica Insane Asylum. His conclusions are as follows: These new

remedies both have a marked hypnotic and sedative action, but trional appears to be the more serviceable as a hypnotic for the insane. On the other hand, small doses of tetronal appear to give the best results as a sedative. As a rule, the hypnosis which is produced is calm and quiet and resembles very closely natural sleep. In a few instances unpleasant after effects were noted, but they did not continue long and were not at any time alarming. They do not depress the heart's action. In the majority of cases fifteen grains (gramme 1) of trional given in hot milk at bedtime will produce sleep of from six to nine hours' duration which is not accompanied by dreams. The time it takes to produce this effect, is, in favorable cases, from fifteen to forty-five minutes, although it may be prolonged to over two hours. With tetronal it was found that generally fifteen grains (gramme 1) were required to obtain the same results, and as this remedy is twice as expensive as trional the latter is to be preferred, as a rule. Both of these drugs have the effect, with some patients, of producing sleep for two nights after a single administration. Their sedative action appeared to be most satisfactory, and with few exceptions did not produce a drowsy or stupid condition. The dose of trional as a hypnotic is from ten to thirty grains, (grammes .66 to 2.) but it is advisable to begin with fifteen grains, (gramme 1). As a sedative ten or fifteen grains (gramme .66 or 1.) at least are required, but in some patients even forty-five grains (grammes 3) will not produce any effect. The dose of tetronal as a hypnotic is from five to thirty grains (grammes .33 to 2.) but in the majority of patients fifteen grains (gramme 1) will be required to procure a satisfactory sleep. As a sedative five or ten grains (gramme .33 or .66) given once or twice a day will generally prove to be of benefit.—*American Journal Insanity, April.*

CHLORALAMIDE IN NERVOUS INSOMNIA.—J. S. Leonhardt, M. D., says: "Chloralamide seems to more fully overcome all hitherto existing difficulties and objections than any other medicine I have any knowledge of, and stands to-day, or will in the near future, as the calmative par excellence in nervous insomnia." He prescribes,

Chloralamid-Schering.....3ijss
Spts. vini gallici.....3ij

Sig. Teaspoonful an hour before retiring.

A NEW SUBSTITUTE FOR COCAINE is the acetamide of eugenol, which is contained in the oil of cloves. It is in crystalline form and produces a high degree of local anæsthesia. As it has no caustic action and is an energetic antiseptic, it may be found superior to cocaine for minor operations upon the mucous membranes. (*The Lancet*, Dec. 10.)

SIMPLE PHOTOPHOBIA TREATED BY THE CONTINUOUS CURRENT.—An extract of a paper by Dr. Hern on the above subject is printed in *The Lancet* of Feb. 11th. He records two cases of photophobia without lesions discoverable by naked eye or ophthalmoscopic examination. Patients were usually anæmic, of nervous temperament, and in several instances were convalescing from a severe illness. Did not exhibit hysterical symptoms. He thought simple photophobia due to retinal change, the exact nature of which was undetermined. The treatment he advocated was the application of the continuous electric current applied in the way described by Dr. Buzzard. Treatment by suggestion had been tried, but without effect. Many of the cases occurred in rheumatic people.

B. M. CAPLES.

MECHANICAL TREATMENT OF LOCOMOTOR ATAXIA.—Dr. Rubens Hirschberg (*Rev. gen. de Therap. med.*, Jan. 30.) concludes that the ataxic movements of tabetics may be very decidedly ameliorated by the method of Dr. Fränkel. Such exercises increase the muscular power of the affected members. The exercises, in submitting the muscular contractions to the will of the patient, ameliorate the coordination of the movements. In raising the morale of the patient and restoring to him his confidence in his legs, pathophobic imperative ideas which so frequently check the motility of tabetics are banished. The treatment is indicated in all periods of tabes. The best results are obtained when the patients have not ceased to walk. The treatment is contra-indicated in galloping tabes, especially when the articulations are affected. The treatment is without effect on anything but motion.

J. G. KIERNAN.

TREATMENT OF PARALYSIS AGITANS.—Dr. Mendel, of Berlin, publishes a case in which he produced notable abatement of the tremor of paralysis agitans by subcutaneous in-

jections of from 2 to 3 decimilligrammes of duboisine 3 times a day. In 15 minutes after injection the trembling was so moderated as to enable patient to write more legibly.

DRUGS USED IN NERVOUS DISEASES.—The following is a very brief resume of an article by Dr. A. A. Boyer. He first mentions remedies for chorea. Arsenic is a tonic, it increases number of red blood globules and the general tone of the muscular system. In chorea it acts by depressing spinal cord action and producing muscular capacity. In acute violent chorea, chloral is used to produce sleep. Antipyrine is used successfully, but it tends to deteriorate the quality of the blood. Concerning remedies for insomnia he thinks chloral and sulfonal are much over-rated.—(*Jour. Nervous and Mental Diseases*, Jan. '93.)

THE TREATMENT OF STATUS EPILEPTICUS.—Kernig in the *Petersburg Med. Wochenschr.*, No. 18, speaks of the treatment of this condition in which convulsions follow each other so rapidly that the patients do not regain consciousness. A young woman had convulsions all night and in the morning lay in a comatose condition. There was no pulmonary œdema and the pulse was good. As the convulsions began again she was given a hypodermic injection of 0.02 gm. of pilocarpin and at the same time 1.5 gm. of camphor by the mouth. This caused a profuse perspiration and the convulsions ceased immediately. For about an hour she was threatened with pulmonary œdema and collapse. This passed over and was followed by a healthy sleep. An elderly gentleman, who had suffered from epileptic seizures every four or five weeks, had a severe nervous shock which caused the attacks to be more severe and more frequent. After convalescing from a light attack of typhus he had nine typical epileptic convulsions in seven hours. During the intervals he was comatose. Until the fourth convulsion his temperature was normal, after the ninth it was 39.2°. He was given a hypodermic injection of 0.015 gm. of morphia, after which he slept quietly all night. (*Allgemeine Zeitsch. für Psychiatrie*, Vol. 94, No. 4.)

JOS. KAHN.

MALTINE WITH PEPTONES IN CERTAIN NERVOUS AFFECTIONS.—Dr. Graeme M. Hammond recommends the use of maltine with peptones in all nervous troubles where there is any

gastro-intestinal irritation. He says that children who are doing well on medical treatment and exclusive milk diet have improved more rapidly in strength and bodily condition when the maltine with peptones was regularly administered. Milk was the only diet that heretofore he had allowed epileptic children to have, but he thinks they do not get sufficient nitrogenous nutrition from this and that by the addition of maltine with peptones to the diet a sufficient quantity of proteid food, in a digested condition can be given, with the result of materially benefitting the patient's physical condition. He regards it as a most valuable remedy for treatment of disorders of digestion and for imperfect nutrition. (*N. Y. Medical Journal*, Dec. 3, '93.)

MIGRAINE—An account of a case of intense obstinate migraine relieved by copious draughts of water, is recorded in *The Lancet* (Jan. 21, 1893.) Patient had intermittent excruciating pain beneath the eyebrow, attacks announcing themselves by tension of veins and throbbing of arteries in that region. An abnormally thickened lymph produced congestion of pituitary membrane, whereby an artery was obstructed, whose pulsations rub on neighboring nerve, causing throbbing pains. The water served to increase fluidity of the lymph, thus accelerate its flow and relieve congestion. Migraine may be due, (1), to imperfect elimination of waste products, often cured by "flushing the drains," (2), to pure neurosis or "nerve storm," (3), to errors of refraction, (4), to various local conditions of nasal passages and sinuses as catarrh, inflammation, necrosis polypi, foreign bodies, caries of teeth, (5) to frequent and sudden alterations of lens accommodation.

THE CURE OF THE MORPHINE HABIT BY SULPHATE OF CODEINE.—The *N. Y. Medical Journal* of Jan. 7th contains an article as above. Case described was one in which codeine was substituted for the morphine, giving it in larger doses. After having first reduced the morphine to the minimum, codeine was substituted, giving about one grain doses ten to twelve times during the 24 hours. This was continued from ten to fourteen days. Acetanilide, bromo-caffeine and quinine were used as auxiliaries.

TREATMENT OF WRITER'S CRAMP.—Benedict has relieved a case of writer's cramp by injecting carbolic acid in the neighborhood of the sensitive point in the course of one of the flexor tendons of the related fore-arm. Langdon has succeeded in overcoming writer's cramp by having the pen held between the second and third fingers in such a way that the holder rests upon the latter at an angle of 110 to 135 degrees while it is supported below by the thumb, the index finger resting lightly above. (*Med. News*, Apr. 15, 1893.)

B. M. CAPLES.

AGATHIN.—Dr. Ilberg reports unfavorably on trials made with this substance, which Rosenbaum has praised highly as an antineuralgic and anti-rheumatic. Two cases of supra-orbital neuralgia, two of sciatica and three of tabes reported no relief. One light case of sciatica (first attack) reported relief in six days. Four cases of acute and two cases of gonorrhoeal rheumatism were not influenced and in three cases of chronic rheumatism it was doubtful whether the improvement was due to the remedy or to the rest in bed. Most of the patients complained of headache, and other unpleasant cephalic sensations. Other incidental effects noted were: insomnia, vomiting, each twice; diarrhoea, pain during urination, subjective sensation of fever, great thirst, each once. (*Deutsch. Med. Wochens.*, No. 5, 1893.)

G. J. KAUMHEIMER.

ON THE VALUE OF THE ELECTRICAL TREATMENT OF PRESSURE PARALYSIS.—Delprat believes with Möbius that "it is not proven that the action of electricity in organic paralyses is at all remedial; that palsies of central origin are incurable, and that those of peripheral origin, as far as they are curable, tend to spontaneous recovery and that no facts have been advanced to prove that electricity can hasten the "*restitutio ad integro*." To test this opinion he records experiments on 87 cases of that form of peripheral paralysis, called by the Germans "Schlafparalysen," that is, produced by the pressure of the body on the members during sleep. Of 87 cases, 33 were treated by faradism, 28 by galvanism and 26 were treated in such a way that the patients supposed that they were receiving electrical treatment, although the circuit was incomplete. Frequent tests by the dynamometer were employed and Delprat reaches the conclusions that: 1, the various

forms of treatment employed do not differ appreciably in therapeutic effect; 2, that this effect is certainly not greater than that of a purely suggestive sham treatment; 3, that the suggestion does not act, as Möbius supposes, in a direct manner, as in this case the effect would have been greater where the current could be felt. In 33 cases the strength of both hands was tested by the dynamometer immediately before and after each treatment. In 18 cases which received faradic electricity 51 tests were made. The strength of the paralyzed arm was greater 18 times; less 20 times and the same 13 times, than before treatment. In 37 cases the strength of the sound hand was greater after treatment of the other, 18 times; less 16 times; the same as before 3 times. The same tests with similar result, were applied, 56 times in 10 cases treated by galvanism, and 11 times in 5 cases of pseudo-treatment. Indeed the latter showed somewhat greater absolute gain by the dynamometer readings.—(Dr. C. Delprat, *Deutsche Med. Wochenschr.*, No. 3, 1893.)

G. J. KAUMHEIMER.

CASE OF MYXŒDEMA TREATED WITH THYROID EXTRACT AND THYROID FEEDING.—Woman, aged 54, suffered from myxœdema for 14 years, was given subcutaneous injections of thyroid juice by R. A. Lundie, of Edinburgh. Improvement rapid for six weeks, then treatment was discontinued on account of its causing diffused pains. Abscesses were also present, but probably not originating from injections. Patient relapsed and the extract was given through the mouth. Improvement apparent within a fortnight, and general results, five months after beginning of latter treatment, most satisfactory. Patient is given extract representing one-sixth sheep's thyroid twice weekly. It is most important to avoid unusual exertion while undergoing treatment by thyroid juice. (*The Lancet*, Jan. 14.)

MYXŒDEMA TREATED BY INJECTIONS OF THYROID JUICE.—Mendel (*Ein Fall von Myxoedem*, *Deutsche Med. Wochenschr.*, No. 2, 1893) reports a case of eleven years standing in which all the symptoms were well marked. There were present mental weakness and apathy, waxy color, and the characteristic solid œdema. The only hair on the whole body were the few on the head and a very few on the genitals. The temperature varied from 34.8° to 36.3° C,

and she complained greatly of cold. The parotid saliva contained mucin. Encouraged by the reports of improvements through the use of thyroid juice, it was adopted in this case. The extract was prepared according to the method published by White in the *Brit. Med. Jour.*, Oct. 29, 1892. The injections were made daily, the dose being at first one-half, later three fourths of a syringe-ful. Neither local nor systematic reaction occurred. Mendel reports the result as follows: the patient states that she can walk easier and feels stronger. She is more loquacious and brighter mentally. The swelling, especially of the back and legs, has diminished, and the swelling of the right eyelids has lessened to such a degree that the eye can be readily seen (before only a narrow slit could be seen). The average pulse rate has risen from 60 to 70. The quantity of urine (previous average 1100 ccm.) has steadily risen, varying from 1500 to 2000 ccm. per day, with a rise in the excretion of urea from 14.3 gm. per day to between 20 and 25 gm. (highest 36.4 gm.) The temperature is over a degree higher than before treatment was instituted. In spite of this palpable improvement, the diagnosis of myxœdema can still be easily made from the appearance of the patient. Unfortunately there is nothing in the article to indicate how long treatment had been continued at the date of report. Dr. Ralf Wichmann (*Ein Fall von Myxoedem, gebessert durch Injectionen mit Schilddrüsensaft*, l. c.) also reports a case of two year's standing, which was fully as severe as Mendel's. The patient received in 35 days nine injections of one syringe-ful each of a thyroid extract prepared according to Carter's method. At the end of that time the improvement had been so great that the diagnosis would not have been possible from the remaining symptoms. Wichmann does not expect a cure, but thinks he will have to repeat the injections from time to time in order to maintain the ground gained.

G. J. KAUMHEIMER.

THE FIRST CURED CASE OF HUMAN RABIES.—The case was reported by Novie Poppi in *Società med. chir. di Bologna*, Apr. 15, 1892. The patient was a strong man of 22, who had been bitten in the left leg four days before he applied to the Pasteur Institute at Bologna for treatment. He was given the usual course of treatment and received 48 injections within 20 days. He felt well during all this time and

was to have been discharged, when he complained of a sensation of great heat, violent pain along the spine and great restlessness. The temperature was slightly raised, the tendon reflexes normal. As the diagnosis of rabies was self-evident, the preventive inoculations were resumed and eight injections of virulent spinal cord were made. The patient became no better; the weakness increased; the tendon reflexes disappeared and retention of urine and constipation set in. The lower extremities were parietic, especially the right. He was in that pronounced stage of the disease in which, according to Gameleia and Augier, a cure is highly improbable. The use of extreme measures was therefore justifiable. As Gotti and Protopopoff have found that immunity is best conferred on animals by direct intravenous injection of the emulsion, and the case seemed absolutely hopeless, the attempt seemed justified and the intravenous injections were begun on the third day of the disease. The injection of 2 cc. of an emulsion of a cord 15 days old was well tolerated and the injections were continued for seven days with material of constantly increasing virulence. Under this treatment the condition of the patient improved; the paresis of the limbs, bladder and rectum disappeared and the tendon reflexes returned. The temperature showed an evening exacerbation several times but at last became normal. (*Wien. Med. Wochenschr.*, No. 52, 1892.)

G. J. KAUMHEIMER.

ANTIPYRIN.—Dr. A. Kronfeld reports a number of cases of epilepsy, chorea and hystero-epilepsy relieved or cured by the use of antipyrin in doses of 0.5 to 1 gramme 3 times a day. The histories accompanying his article are, unfortunately, quite fragmentary in character.—(*Wien. Med. Wochenschr.*, No. 48, 1892.)

G. J. KAUMHEIMER.

THE TREATMENT OF THE MORBID FEARS OF THE NEURASTHENIC.—Dr. Ewald Hecker relates two cases of morbid fear in neurasthenic patients. In both cases the patient was unable to eat in company. Any attempt to do so was followed by a violent inspiratory dyspnoea, which did not occur when he took his meals alone. A considerable hypertrophy of the inferior tubinated bodies was found in both cases occluding both nostrils. Proper treatment of this relieved the respiratory spasm. The mechanism of this trouble is

obvious. The morbid fears of the neurasthenic may also have a visceral origin, as pointed out by Ewald in his essay on enteroptosis. Hecker then points out that the morbid fears of the melancholic are logically justified in his own mind, while those of the neurasthenic are sudden in origin and just as inexplicable to the patient as to those around him. From this H. reasons that the melancholic should be referred to the closed institution, the asylum, for treatment, while the neurasthenic patient should be treated in open institutions. He has found general faradization and galvanization of the sympathetic ($\frac{1}{2}$ to 1 M. A. for 1 to 2 minutes) of value. The diet should bland and varied. He warns against the use of cold douches and too energetic frictions, but has found local spongings of value. He has also learned to fear the use of active cathartics in these patients. As the constipation in these cases is due usually to spasm of the intestine, opium, belladonna and similar drugs are more likely to be of use. The use of morphia and alcoholics to cut short the attack is fraught with danger, but is occasionally unavoidable. (*Berlin. Klin. Wochenschr.* No. 47, 1892.)

G. J. KAUMHEIMER.

A CASE OF MYELITIS CURED BY SUSPENSION.—The case, that of a young soldier, began with weakness of the arms and legs. When seen some weeks after the first complaint the gait was swaying, and the muscular power greatly reduced. Romberg symptom was noticed only after a long time. Sensation was reduced below the knees. The knee, achilles, plantar and gluteal reflexes were absent, the cremaster reflex weak, lower abdominal reflex distinct. After a few days in bed, upon expectant treatment, all the symptoms became much worse. Suspension was then instituted, the first seance lasting only 30 seconds. Improvement soon took place. Within five weeks the Romberg symptom disappeared and after the 29th suspension a slight but distinct knee jerk was elicited. After the fiftieth suspension, the man was dismissed cured. The only anomaly remaining was a weakness of the knee jerk on the right side, as compared with the left. (*Dr. Kirchner, Berlin. Klin. Wochenschr.* No. 47, 1892.)

G. J. KAUMHEIMER.

THE STOMACH AND THE ABSTINENCE-PHENOMENA OF MORPHINE.—Hitzig calls attention to the fact that a great many of the symptoms complained of by patients who are

undergoing the withdrawal of morphine strongly resemble those related by the subjects of chronic gastric catarrh. Alt has determined that about one-half the injected quantity of morphine is excreted by the stomach within the first hour. From this Hitzig assumed that the abstinence-phenomena spoken of were due to hyperacidity, due to the change in the secretory activity of the stomach. He relates experiments made upon a physician who was taking about 25 cgm. per day. The test breakfast was syphoned out, and at the beginning of treatment only a bare trace of HCl was found in the gastric contents. With the diminution of the dose of morphine, the acid gradually increased until on the day he got his last dose 1.35% of HCl were found. This rose later to 1.90%. The influence of the morphia upon the secretion of acid was noticed to last several days. An alkaline lavage always followed the expression of the stomach contents. The patient stated that he had suffered much less this time than in three previous "cures" of the same nature. Hitzig then discusses the influence of the therapeutic measures adopted (warm baths and trional) and concludes that the lavage is the cause of the comparative comfort of the patient. Of course the hyperacidity found was only relative, not absolute, but was deemed sufficient to explain the symptoms. (*Berlin. Klin. Wochenschr.*, No. 49, 1892.)

G. J. KAUMHEIMER.

SURGERY AND TRAUMATIC NEUROSES.

BRAIN SURGERY; DIAGNOSIS; LOCALIZATION AND OPERATION FOR THE REMOVAL OF THREE TUMORS OF THE BRAIN, WITH COMMENTS UPON THE SURGICAL TREATMENT OF BRAIN TUMORS.—This is the title of a paper by Drs. Charles McBurney and M. Allen Starr. The first part, relating to surgery was read by Dr. McBurney. It is important, he said, to put all cases on record, successful or unsuccessful, until the exact limits of surgical treatment of brain tumors and of brain surgery generally, had been well established. So far as is known eighty-seven operations had been done for brain tumors, seventy-four cerebral, thirteen cerebellar. Number of cases in which no tumor was found, cerebral sixteen, cerebellar, seven. Number of cases in which tumor was found and not removed: cerebral, one, cerebellar, two. Removal, with recovery of patient: cerebral, thirty-eight, cerebellar, two. Removed and

patient died: cerebral, nineteen, cerebellar, two. Percentage of recoveries after successful localization and removal, forty-six. Author thought this encouraging. Failures were due to lack of sufficient localizing symptoms, inaccessibility of tumor or wide infiltration of brain, or to the fact that operation had been undertaken only to relieve intra-cranial pressure. Thirty-four of the cerebral cases were in motor area, and it was when the tumor affected this area that its location was easiest to determine. Removal had been successful from almost all parts of the convexity; it was impossible to reach mesial or basal tumors. Operation for cerebellar tumors was essentially exploratory. Tumors had been reached in only six of thirteen cases. Assuming that accurate diagnosis of brain tumor had been made, and localization carefully studied by a neurologist, grave doubt would still exist as to the tumor's consistency, vascularity, depth in the brain, whether encapsulated or infiltrating the brain. Operation should be postponed if there were a moist or discharging scalp from eczema. Incision of scalp should be free, say three inches in diameter; horseshoe incision is best. A common procedure is to make a trephine opening, and then break up the bone by rongeur forceps. Dr. McBurney preferred the bone-flap method. Subsequently this could be turned down again and would unite, closing the wound, or it could be left partly open for a time for removal of gauze inserted to prevent hemorrhage. Dura divided, presence of tumor might be determined by sight, by palpation, blunt probe, or aspirating needle. Wounded vessels of pia might be troublesome. Light touch with the cautery was the quickest way of disposing of the smallest ones. Useless to try to ligate or sew up a bleeding sinus. Pressure with gauze or forceps would prove most successful. Hæmorrhage from cavity previously occupied by tumor controlled by gauze dressing. Dr. Starr then reported three cases: The first a farmer; aged 40; good health until this illness, Dec. 1890, was suddenly seized with a feeling of dizziness and distress which turned into a convulsion. Was picked up unconscious, remaining so two hours and a half. Right side weaker than left. Next six months there was headache and occasional nausea. Sight began to get dim, headache more intense, becoming localized over forehead and tophead on left. Progressive dullness of thought, and difficulty in use of language. Optic neuritis worse on left. Knee-jerk exaggerated. Right hemiplegia slight. No objective anæsthe-

sia. Diagnosis was of brain tumor, but its situation was doubtful, yet he thought that owing to intellectual dullness and gradually increasing motor symptoms, and certain interference with speech that the second frontal convolution was involved, with functional implication, by proximity and growth, of the motor and insular areas. Patient had had syphilis twenty years before; did not improve under specific treatment. Analysis of twenty-three cases of tumor of frontal lobe had shown mental disturbance in one-half of them. The mental dullness in this case pointed to implication of this region of the brain. Operation recommended, but not accepted. Finally, the patient being much worse, nearly blind in the right eye, unable to see letters with the left, motor and mental symptoms worse, urine passed involuntarily, an operation was performed by Dr. Starr. Tumor found, as expected, in posterior part of second frontal, the adjacent portion of first frontal, and upper half of anterior central convolutions; larger than had been supposed, measuring three inches and a half by two inches. It was an encapsulated sarcoma. Hemorrhage and shock marked. Death took place after eight hours. The second case was a fibro-sarcoma of the cerebellum and pons. Patient under observation about a year. When first seen there was severe frontal and occipital headache, vertigo, tinnitus aurium, numbness of left side of face and in the mouth, and continuous feeling of drowsiness and dullness. These symptoms had developed gradually during the preceding three years. During the last year vision became double, with increasing blindness; well-marked choked disk, decrease of visual field; speech slow and thick; no disturbance of sensation, motion, or reflexes; no ataxia. The existence of headache, vertigo, tinnitus aurium, nystagmus, diplopia, and choked disc established diagnosis of brain tumor; location could not be determined. Patient became quite blind. Well-marked optic atrophy, deafness in left ear; considerable staggering in walking; marked tendency to turn to the right, and to fall to right and forward, symptoms which pointed to the cerebellum as the seat of tumor. Some weakness of right hand. That the lesion was on left side was shown by pain in left side of face, tinnitus in left ear, which afterwards advanced to deafness, and later, headache remained almost constantly in left occipital region. Dr. McBurney made an opening about an inch and a half in diameter. Dura protruded strongly, indicating pressure within. No tumor could be

seen or felt. Surface of cerebellum protruded too much to be replaced and the excess had to be shaved off. No noticeable change in symptoms except that headache was not so severe. On third day patient fell out of bed and blood-clot was found beneath the skin-flap. Chill occurred; temperature rose; stupor increased. Patient died about eleven days after operation. Autopsy revealed a glio-sarcoma, not encapsulated, but yet distinct from the cerebellar tissue, situated on lower anterior surface of left lobe, extending on lower left half of pons. The fifth, auditory and facial nerves were pressed upon, but not degenerated. Tumor could not have been reached by operation.—The third case occurred in a little girl who suffered from headache, gradually advancing blindness due to optic neuritis, difficulty of walking, marked staggering, but not constantly in any one direction. Slight tendency to fall backward and to left. Aching in right ear. Diagnosis of cerebellar tumor, probably of vermiform lobe, more likely to right than to the left. Absence of cranial nerve palsy showed it was not at the base. Dr. McBurney operated, chiselling down on the right cerebellar lobe, and using rongeur forceps. Nothing found except on introducing aspirating needle half an inch from the median line, when two drachms of clear serous fluid was withdrawn. Nothing was obtained when needle was introduced second time. Patient had some shock, but next day about as well as before operation. Continued so until sudden death in convulsion six days after operation. Autopsy showed a glioma two and one-half by two by one inch involving the vermiform lobe, and extending to both hemispheres, especially right, just under cortex. In its center was a small cyst. Dr. Starr has found, according to statistics, the percentage of deaths after cerebellar operations to be 77, while after cerebral it was 51. (*Med. Record*, Jan. 21, 1893.)

B. M. CAPLES.

SEVERE FRACTURE OF THE VERTEX WITH REPLACEMENT OF A LARGE FRAGMENT OF BONE.—Drs. Page and Hutchinson report the case of a man who was struck on the head by a piece of coal falling from a height of 120 feet. There was loss of speech and of sensibility and motility in the greater part of his body, but in other respects the condition of the man appeared normal. Swallowed readily and the sphincters were unaffected. A segment of the calvarium about $4\frac{1}{2}$ by $2\frac{1}{2}$ inches, of a triangular shape, was found depressed com-

pletely below the surface of the inner table; its longest (posterior) border ran diagonally across the vertex, from $5\frac{1}{2}$ inches directly above the right, to 4 inches above and $\frac{1}{2}$ inch behind the left auditory meatus, while its obtuse angle lay directed forward at a point $4\frac{1}{2}$ inches above the middle of the left superciliary ridge. The surface of the depressed portion and of the skull for from one-half to one inch around was completely stripped of periosteum. Two buttons were removed with a half-inch trephine, one in front, about an inch from the right extremity of the fracture, the other behind and about one-half inch from the left extremity. An elevator was introduced and the fragment dislodged. Wound was cleansed and the large fragment was re-inserted into the gap. Almost immediately upon the elevation of the fragment patient lifted his head and inquired where he was, and answered questions slowly, but rationally. The next morning his temperature was 99; pulse 75. The patient had occasional nocturnal delirium which rendered him difficult to control. A decided irritability of temper and suspiciousness of mind on the third and fourth days, especially toward his wife, whom he several times ordered out of the room. These manifestations, however, soon passed away. In ten days the man began to move the left leg a little; in a month could stand alone for a few minutes. In six weeks he was able to get into his buggy, or walk about slowly with a couple of sticks. A year after the accident had perfect control over all his muscles excepting those of the right leg and thigh, which still feel "heavy and stiff." (*Med. News*, Feb. 18, 1893.)

B. M. CAPLES.

AN OPERATION FOR RE-COVERING THE DENUDED CRANIUM.
—Dr. Haldor Sneve refers to an operation devised in the eighteenth century by an unknown French surgeon in east Tennessee. The operation consisted in making multiple perforations through the denuded external table of the skull down to the diploë, to invite granulation-tissue to appear in the openings thus made, in order to fill up the denuded spaces, and thereby protect the bare skull and prevent exfoliation of the bone, with consequent exposure of the brain. The Doctor gives an account of a case upon which he operated with gratifying results in the state insane hospital at Dayton, Ohio, some years ago. The operation is one worthy of more attention than it has received. (*Medical News*, March 4, '93.)

REMOVAL OF CEREBRAL TUMOR.—Booth and Curtis, (Annual of Surg.), report case of tumor of left frontal lobe successfully removed. Patient aged 24 years, good family history; diagnosis based on following main symptoms: (1), unilateral anosmia; (2), optic neuritis; (3), aphasia; (4), mental change; (5), external swelling on temple. Tumor size of small hen's egg, covered externally and below by adherent dura and on all sides by firm fibrous capsule. When allowed to go home some three months later, excitement brought on severe epileptic attacks from which he did not recover. Post-mortem revealed all remaining portion of left frontal lobe converted into hard tuberculous mass, with cavity below it full of soft, cheesy material. Remainder of left hemisphere and the right showed no other foci of disease, but a softened area of considerable size found in left lobe of cerebellum. Paralysis of right external rectus had existed but could not be explained as due to lesion found.

CEREBRAL ABSCESS AFTER OTITIS MEDIA ACUTA HEALED BY OPERATION.—Truckenbrod (*Arch. of Otol*, XXI, 21) reports a case of this kind occurring in a gentleman aged fifty-four, which is the second case of the kind on record. In this case the chief diagnostic point was the aphasia, which, according to Wernicke, indicates a disturbance in the posterior third of the first left temporal convolution of the brain. Hence it was assumed that the abscess was situated in the temporal lobe. There was also circumscribed pain in that region throughout the entire course of the attack. The paresis of the right facial nerve, the convulsions in the right arm, and the weakness in the right hand, aided the correct diagnosis. The agraphia and dyslexia were also all explained by the increased pressure in the skull. The mastoid was opened in this case, and, although no disease was discovered, there were traces of former disturbances. The tegmen was then chiseled away, the dura mater and membranes were divided, the brain was punctured, and after pus was revealed, the brain was pierced with the knife up to the cavity. Drainage was accomplished by means of a broad tube. The recovery was rapid and excellent, and in six weeks the cicatrix had closed. In two weeks after the operation the patient wrote long letters with ease. (*N. Y. Med. Jour.*, Jan. 21, 1893.)

A CLINICO-PATHOLOGICAL STUDY OF INJURIES OF THE HEAD, WITH SPECIAL REFERENCE TO LESIONS OF THE BRAIN SUBSTANCE, is the title of an article by Charles Phelps, M. D., in the *N. Y. Med. Jour.* of Jan. 14, 21, 28. Following some general remarks, Dr. Phelps gives an analysis of 124 cases which have come under his personal observation and from which he deduces his conclusions upon brain injury. He divides the cases into three classes, namely: *fractures of the base, fractures of the vertex; injuries of the encephalon.* Nearly 60 per cent of injuries of the head involve fracture of the base, at the same time most of these *begin* at the vertex. Fractures, by themselves, are unimportant, as it is only by their complications that life is endangered. These complications are *hæmorrhages, thrombosis, lacerations, contusions* and *paralyses*. Their derivatives are *meningitis, abscess* and *atrophy*. All of these may be produced directly from injury to the encephalon without fracture, with the exception of *epidural hæmorrhage*, which is the most characteristic complication of fracture. *Subarachnoid hæmorrhage* is ordinarily derived from laceration of the cortical substance and is often the direct cause of death. *Subdural hæmorrhage* most frequently depends upon rupture of the arachnoid and escape of blood from the pia mater into the arachnoid cavity. *Cortical hæmorrhage*, however, is the one most frequently encountered. *Lacerations* and *contusions* are first in frequency and importance among injuries to the head as they play a part in all fatal cases. In non-fatal cases the process of reparation after injury is slow, in others an interval of a few moments to several days may elapse between date of injury and death. There is no tendency to meningeal or visceral inflammation with the exception of occasional formation of abscesses. Dr. Phelps asserts the important fact in connection with cerebral abscess to be that it occurs from direct brain lesion independent of injuries to the scalp, skull or meninges. *Contusion* occurs in three forms: *general* and *limited*, affecting the brain, and *meningeal*, involving the membranes. All may exist in the same case. In reparation only absorption is required and recovery should generally take place. *General* contusion is less frequent than laceration. *Meningeal* contusion occasions hæmorrhage and inflammation. *Traumatic arachnitis*, the author concludes, does not result from direct injury transmitted through fracture nor from inflammatory process, although this complication was form-

erly thought to be the great danger after injury. *Paralysis* was represented but in a single case, in which there was compression of the optic nerve. Progressive atrophy followed and loss of sight was permanent. It is almost safe to assume that if a lesion of the brain exists it has been produced by a *contre-coup* at a distance from seat of injury, and this point is almost always at the opposite side of the brain. *Concussion* and *compression* should be abolished as terms describing a pathological condition. There is nothing in analogy to warrant the assumption that any fatal disorder terminates without involving structural change. *Symptomatology.* Unconsciousness may be regarded as symptomatic of brain injury with diffuse effect, but not necessarily of diffuse injury. The pulse has no great practical diagnostic value, but the temperature is of primary importance. Traumatic and alcoholic coma are needlessly confounded, as in the latter condition temperature is invariably subnormal. In apoplexy, also, the temperature is at first subnormal, then normal unless death be imminent, in which case it rises. This is in marked contrast to traumatic lesions in which elevation is an early and constant symptom. Symptoms peculiar to fracture of the base are serous discharges from ears and nose and hæmorrhages from the same or mouth into the orbital, subconjunctival, or cervical subcutaneous tissue. The characteristic symptom of fracture of the vertex, aside from a possible serous discharge, lies in its perception by sight or touch. Symptoms of encephalic injuries are peculiarities of temperature, pulse and respiration; unconsciousness; delirium; irritability; paralysis; muscular rigidity; convulsions; anæsthesia and hyperæsthesia; pupillary changes; and, in a late stage, dementia. Symptoms of lesser clinical value are cephalalgia, vomiting, vertigo, incontinence of urine and fæces. *Prognosis.* In the 124 cases cited nearly 40 per cent. recovered. Fractures at the base numbered 70, 30 per cent. ending in recovery. Dr. Phelps charges laceration with cause of death in 50 per cent. of his cases. *Treatment.* Shaving of the head is most important, as it permits discovery of contusions, and facilitates the use of the ice-cap, which is of high therapeutic value. Trephining should be resorted to in every depressed fracture where elevation and thorough exploration cannot be otherwise accomplished. Absence of general symptoms does not relieve the surgeon from responsibility of operating. Dr. Phelps concludes his article by saying:

"The general principles of operative interference in cranial fractures and encephalic injury may be recapitulated and formulated as follows: Incision of the scalp, trephination, incision of the dura mater, and perforation of the brain, severally or together, should have resort without fear or hesitation when indicated. Incision of the scalp and trephination are devoid of danger and are always justifiable for exploration, which in itself constitutes an indication. Incision of the dura mater, and incision or perforation of the brain are more serious procedures and should be made only when positively indicated by the general symptomatology."

THE TREATMENT OF THE WOUNDED BRAIN.—Adamkiewicz reports the results of experiments made to test the effects of antiseptics on the brain tissue. The method employed was to inject 1 gm. of the fluid used gently into the brain substance, in the same direction in all cases. As the effect of the puncture is in all cases the same, the varying result must be due to the chemical irritation of the injected substance. He concludes that, presupposing that the human brain has the same irritability as the animal brain: 1. Carbolic acid, in solutions stronger than 1 to 200, are absolutely contra-indicated. In the concentration stated, it can be used, though not without causing symptoms of great irritation, but without permanent harm. 2. Sublimate solutions, even as weak as 1 to 10000 are absolutely contra-indicated. 3. Boracic acid in 3% solution is hardly more irritant than water, and should always be used for disinfection of brain tissue. (*Deutsche Med. Wochenschr.*, No 2, 1892.)

G. J. KAUMHEIMER.

TWO UNUSUAL CASES OF INTRACRANIAL INFLAMMATION FOLLOWING PURULENT OTITIS MEDIA WITH MASTOIDITIS.—Deuch (*Arch of Otol.*, XXI. 3) in reporting two cases of the above nature, refers to the great danger in such cases of the intracranial structures being involved in the inflammatory process, from the extension of the inflammation from the external surface of the temporal bone. In rare cases the pus formed in the middle ear or mastoid appears beneath the periosteum, giving rise to the ordinary post-auricular abscess. The symptoms are then apt to abate somewhat, since the tension is relieved. During this interval, however, the pus burrows, dissecting up the periosteum over a

large area of bone, and thus depriving it greatly of its nutrition. The next step is a necrosis of this bone over a small area, and, as the small sequestrum breaks down, pus is absorbed by the dura mater and a meningitis set up. It is not necessary even for necrosis to occur in order to set up a meningitis, for numerous venous channels exist between the external and internal periosteum which can easily carry the infection to the interior of the cranial bones. In young children before the ossification of the petro-squamous suture, infection is especially liable to take place; for, in many instances, this suture encloses a fold of dura mater, which increases the chance of infection. The first case reported was that of a child, aged ten months, in whom, although the mastoid cortex had been perforated at the operation and satisfactory communication with the middle ear established, yet during the time in which the post-auricular abscess remained unopened, the periosteum had been stripped from the bone over a large area, which subsequently failed to regenerate. In this way perforation at the sutural line took place, and, as the external opening over the mastoid gradually closed, infection occurred through the sutural perforation from the pus within the abscess cavity, leading to meningeal inflammation and disintegration. The second case occurred in a man, aged forty, and at the autopsy a hæmorrhagic pachymeningitis was found extending over the entire right side, but most marked over the frontal and temporo-sphenoidal regions. There was also a small amount of pus on the internal surface of the dura. The brain was normal. Here the pus from the middle ear, not being able to find an exit through the mastoid cells, owing to the existing osteo-sclerosis, dissected up the periosteum of the external auditory canal and, entering the temporal fossa, burrowed beneath the periosteum, denuding the squamous and mastoid portions of the temporal bone over a large area, and causing a circumscribed necrosis of the squamous portion of the temporal bone. Meningitis then followed and assumed the hæmorrhagic form.—(*N. Y. Med. Jour.* Jan. 21, 1893.

SUBDURAL HAEMORRHAGE AND OPERATION.—Dr. F. C. Schaefer reports a case where hæmorrhage occurred three years after injury of the skull. The first symptoms of clot were those of localized convulsions, beginning in the fingers of the left hand, involving the arm and entire left

half of the body. Later unconsciousness occurred, followed by hemiplegia, hemianæsthesia and ataxic aphasia with mental dullness. The doctor trephined the skull over the arm center, where the scar of the original injury was located. He found a subdural hæmorrhage and evacuated about two tablespoonsful of blood. There were evidences of leptomeningitis. Three weeks later the patient was very much improved especially the paralysis and meningitis. The ataxic aphasia was also improved. (*Chicago Clinical Review*, March, '93.)

EXTIRPATION OF AN INTRADURAL TUMOR OF THE SPINAL CORD.—Man, aged 33, sustained severe shaking by jumping from a height at age of five, and at age of seven suddenly lost power in legs for four or five months without becoming unconscious. This never occurred again. At age of 20 began at intervals to suffer from pain localized in line extending from third to seventh intercostal space midway between parasternal and nipple lines. This gradually became worse, later hyperæsthesia, first of left and then of right thigh, followed by patches of anæsthesia; soon noticed some motor disturbance in lower limbs, muscles showed tendency to spasmodic contraction at every step. Pain in side of chest extended toward spine; micturition became difficult. Sensibility of lower limbs continued to diminish; bladder and rectum became paralyzed; paraplegia complete. Remained in this condition eleven years. On examination muscles of thigh atrophied. Pedal reflexes and ankle clonus exaggerated. Sensibility abolished over whole body up to level of irregular line passing through fourth dorsal vertebra and fifth intercostal space. Intestine was paralyzed, sphincters not. Incision made from seventh cervical to below third dorsal vertebra. A roundish mass of whitish color was seen in subdural space, its upper limit corresponding to the upper margin of the arch of third dorsal vertebra, downward to the level of the arch of the sixth dorsal vertebra. No trace of the cord could be discovered at level of seat of operation. At a point corresponding to upper extremity of tumor it seemed to be suddenly flattened out and to become merged in the smooth, white, firm surface of the dura. Tumor removed. Except for some diminution in exaggeration of reflexes of lower limbs no change in patients condition either as regards motor or sensory paralysis. Microscopic examination showed the tumor to be

fibrosarcoma with here and there traces of myxomatous structure. (*British Medical Journal*, Dec. 31, '92.)

B. M. CAPLES.

THE OPERATIVE TREATMENT OF TRIFACIAL NEURALGIA.—Dr. Stoker has an article in the *Lancet* of March 25th in which he briefly reviewed the recent work which has been done in this direction; advocated operation on the fifth nerve in those extreme cases of epileptiform tic which had failed to yield to other treatment and were so severe as to destroy comfort or shorten life. He reviewed the various methods of neurotomy, stretching, avulsion, neurectomy and argued in favor of one or both of the latter as the best plan of operative treatment. He decried neurotomy as an uncertain and halting treatment, almost sure to be followed by return of the neuralgia. He opposed stretching in the treatment of purely sensory nerves as a mere temporary expedient. The paper dealt especially with cases in which he had removed the infra-orbital and gustatory nerves. The operation advocated by him in removal of infra-orbital nerves, and which he had performed with perfect result, was the orbital method of Wagner. In removal of the gustatory nerve he had employed the method of Paravacini which he advocated as much less formidable than the retro- or transmaxillary operations and as giving sufficient access in most cases. He concluded that in cases of trifacial neuralgia demanding operative treatment, neurotomy is not usually a satisfactory or efficient operation. 2. That in merely sensory nerves stretching is at best a temporary expedient and either should not be undertaken, or, having once been performed and followed by return of pain, should not be repeated. 3. That the reasonable treatment in trifacial neuralgia of an extreme character is neurectomy and that whilst the operation on divisions of the fifth nerve external to cranial cavity may be regarded as an established procedure, the ultimate operation of removing the Gasserian ganglion must still be regarded as on its trial. 4. That avulsion should only be practiced as a part of the open operation and should only be undertaken when open operations are, for sufficient reasons, impossible or inexpedient. The author did not think the situation of pain a definite indication of the portion of nerve engaged nor that there was any danger in removing the nerve behind the sphenopalatine ganglion.

B. M. CAPLES.

REMOVAL OF THE GASSERIAN GANGLION.—The *Med. Record* notes an intra-cranical operation by Prof. D'Antona in which resection of second and third divisions of trigeminal nerve and extirpation of corresponding part of Gasserian ganglion was performed. Patient, a woman, suffering from tic douloureux with convulsive movements of hand and tongue. The convulsive seizures, which had numbered one hundred a day, ceased immediately after operation, and on the eleventh day patient was making rapid progress toward complete cure.

DESTRUCTION OF THE GASSERIAN GANGLION FOR TRIGEMINAL NEURALGIA.—Dr. Roswell Park reports two cases. The first, a man aged 53, thin, haggard, showed evidence of intense and prolonged suffering. History is one of chronic, intractable, spasmodic facial neuralgia of right side of five years standing. The pain first involved second division of fifth nerve, later it involved ophthalmic division, and rarely, pain shooting down third division. Operated, proceeding as follows: exposed the zygoma by an "H" shaped incision, sawed it in two places, turned down detached portion with the masseter muscle. To secure the zygoma in place again necessary to drill each side of each line of section, drill holes being made before dividing bone. Turning down zygoma exposes the coronoid process of inferior maxilla with insertion of temporal muscle. This process also drilled twice and sawed across. With mouth widely opened there is a space sufficient to allow one to attack base of skull under Gasserian ganglion; internal maxillary artery will probably require ligation. Then pterygoid plate is reached from which external pterygoid muscle takes its origin. This muscle is cleared away by detaching it from bone, perhaps by dividing it. Although a useful muscle it is not essential and may be entirely removed. Following external pterygoid plate as a guide foramen ovale is reached. The Gasserian ganglion lies between two layers of the dura mater, which splits to enfold it. It is not possible to exsect the ganglion as one may remove a tumor, as it is concealed from view and is soft and friable. Hæmorrhage is considerable from the numerous small vessels in the sphenomaxillary fossa. This difficulty the author has decided to obviate by tying common carotid artery at point of election. He then makes an "H" shaped incision from the zygoma, makes the four drill holes and saws and chisels through the bone. The trephine is used

to expose the ganglion and small chisels for the rest. The dura then opened, the ganglion broken up with a blunt hook, second branch pulled out from foramen rotundum and together with Meckel's ganglion excised. Small incision made over the supra-orbital notch; nerve found and pulled out from its channel until it broke; external portion was removed. Pain was relieved at once and patient returned to his home in about twelve days.—(*Medical News*, Feb. 18, 1893.)

RADIAL NERVE SUTURE.—Dr. Guelliot (*Gaz. des Hop.* Feb. 9, 1893) reports the case of a workman whose arm had been torn by a machine and radial nerve section had resulted; immediate suture was declined. Two months later, when the wound was almost cicatrized, the patient demanded operation as radial paralysis persisted. The severed ends of the nerve was drawn together and sutured by double catgut and decalcified bone. Sensibility, abolished on the forearm, returned pretty rapidly until there was but slight zone of anæsthesia. The paralysis was not improved and atrophy continued.

J. G. KIERNAN.

THE LARYNGOSCOPE IN THE DIAGNOSIS OF TRAUMATIC NEUROSIS.—Holz has stated that in some cases the laryngoscope might furnish objective symptoms of traumatic neurosis in the shape of paralysis of the laryngeal muscles. Dr. H. Burger has reviewed Holz's article and concludes: 1. Functional paralyses of the adductors of the vocal cords are, a priori, not improbable in traumatic neurosis, although they have not been frequently observed. 2. They are of no value in the differential diagnosis between traumatic neurosis and simulation. 3. Paralysis of the dilators of the glottis and of the recurrent nerve, as a symptom of traumatic neurosis, has not yet been described and are hardly likely to occur. (*Berlin. Klin. Wochenschr.*, No. 47, 1892.)

G. J. KAUMHEIMER.

ACCELERATION OF PULSE IN TRAUMATIC NEUROSIS.—Arthur Strauss (*Berlin. Klin. Wochenschr.*, No. 48, 1892) reports the results of investigations made to determine the value of Mannkopff's phenomenon (acceleration of the pulse on pressure upon painful points) in traumatic neurosis. He

made observations upon a large number of patients and reaches the conclusion that it is of confirmatory value only. That is, its absence does not indicate that the patient is a simulator.

G. J. KAUMHEIMER.

SYPHILIS AND THE NERVOUS SYSTEM.—Dr. H. N. Moyer, in a paper read before the Chicago Academy of Medicine, says: Though medicine is still in the dark regarding the exact pathology of syphilis, it is generally accepted at the present time that it is due to the development of a special bacillus, though that has not yet been determined. There is a close analogy between the exanthematous disorders and those that have a demonstrable bacillus. In the main, syphilis pursues a very similar course. There is the period of invasion, the febrile stage, the eruption, and finally desquamation. It is more than probable that these mark but stages in the development of the life-history of this organism in the body. Like the exanthemata, syphilis is very prone to affect the nervous system. It attacks with greatest frequency the spinal cord, and next, the brain. The portions which are the least often affected are the peripheral nerves. Syphilis rarely attacks the nervous system at its onset. Cases occur of precocious involvement of the nervous system, but are decidedly exceptional. He has seen a case in which all symptoms of posterior spinal sclerosis were present, including the Argyll-Robertson pupil, lightning pains in the feet and inco-ordination, associated with a diffuse papular and macular syphilitic eruption in the secondary stage of the disease, and not more than three months from the possible primary infection. Of course, the question might be raised as to whether this was not an accidental infection of syphilis in locomotor ataxia—that is, whether the disease did not exist prior to the infection—but careful examination seemed to exclude this, and showed that the ataxic symptoms developed co-incidentally and after the primary infection. Of late years there has been abundant evidence that syphilis stands in etiological relation to several important diseases of the nervous system, as, for instance, parietic dementia, locomotor ataxia, ataxic paraplegia, and lateral sclerosis. Too much importance has been, however, attached to the fact that the history of these patients shows that they have been infected with syphilis. Mere coincident phenomena do not necessarily prove that

they stand in the relation of cause and effect; but where as many as 80 or 90 per cent. of cases have syphilitic infection, it is fair to suppose that syphilis stands in causal relation to the disorder. Early involvement of the nervous system in syphilis is quite a different thing from later involvement. The earlier cases are presumably due to the direct effect of the bacillus, or to the generation of ptomaines or toxines, during its development in the body. The pathology of these lesions is quite different from that of the later ones, and they yield readily to the remedies appropriate for syphilis. The changes which come on from three to twenty years after infection are not probably due directly to the syphilitic infection, but rather to the nutritional disturbances to which the syphilitic infection has given rise; in other words, the syphilis has acted as a predisposing cause, just as heredity or other predisposing factors may act. The lesions themselves have ceased to be syphilitic, although the infection has furnished a foundation upon which they have been built up; therefore in these cases anti-syphilitic treatment is for the most part ineffective. Too much importance has been attached to syphilitic infection in the development of certain nerve disorders to the exclusion of other factors quite as potent. In the development of locomotor ataxia it is not infrequent to have sexual excess associated with previous syphilitic infection. In parietic dementia, syphilitic infection is often accompanied by abuse of alcohol and extremely irregular modes of life. In these cases the factors determining the nature of the disease are several; it is a resultant of several causes, and not one cause, and it is extremely important that physicians should carefully warn all patients who have once been infected with syphilis to avoid all causes of excess, to lead regular lives, to avoid worry and excitement, to avoid alcohol in any form, if they would remain free from later and very serious involvement of the nervous system. (*Chicago Medical Standard*, May, 1893.)

SINUS THROMBOSIS, ATTENDED WITH REMARKABLE OCULAR SYMPTOMS.—Shield (*Arch. of Otol.*, XXI, 3) reports the case of a man, aged thirty-five, who had long suffered from right otorrhœa. The right eye was more prominent than the left. There was complete right ptosis, followed three days later by left ptosis, and there was occasionally slight delirium. The patient had a dry, cracked tongue, and lay in a

drowsy state. The exophthalmos was so marked as to suggest the presence of tumors in the orbit. The lids were greatly swollen and the left iris was dilated and immovable. Well-marked optic neuritis was present in both eyes. A thrombosed vein existed at the root of the nose. The discharge from the right ear was profuse, the drumhead was destroyed, and the drum cavity filled with granulations. There was no oedema or tenderness over the mastoid, but there was distinct fullness and local tenderness over the upper part of the jugular vein. The thrombosed vein at the root of the nose suppurated just before the patient's death. The exophthalmia undoubtedly depended on venous engorgement, due to blocking of the cavernous sinuses by clots, which extended by way of the petrosal and transverse sinuses from the right lateral sinus. The angular and frontal veins were also thrombosed. The evident implication of the third nerve on the left side was due to pressure in the cavernous sinus. The right facial paralysis was due to direct implication of the trunk of the seventh nerve in the aqueduct of Fallopius. The origin of the mischief was caries of the right mastoid and thrombosis of the lateral sinus. There were three small abscesses in the cerebral cortex, and a fourth in the right corpus striatum, embolic in origin. The ophthalmic veins were full of firm thrombi. The cavernous and petrosal sinuses were full of pus. (*N. Y. Med. Journal*, Jan. 24, 1893.)

ECLAMPSIA, according to Dr. Pinard (*Mecredi Méd.*, Feb. 1, 1893) is a manifestation of gravidic auto-intoxication resulting from retention or from insufficiency of the organs to eliminate or destroy poison. Tarnier had shown that milk diet was an excellent prophylactic. Dr. Pinard had, between 1889 and 1893, under observation at the Baudelocque clinic about 5000 gravid women, sixty-one of these were decidedly albuminuric and were confined to milk diet. In not a single case did eclampsia result. In France induction of labor was regarded as at best useless. Dr. Pinard had found nothing superior to chloroform or chloral as a calmative of hyperexcitability. In ten years he had treated 79 women at the onset of eclampsia. Of these thirteen had died and 66 recovered. Some had not died from coma but from consecutive hæmorrhagic or septicaemic complications. In all cases antiseptic precautions were necessary. Dr. Guéniot

agreed with Dr. Pinard that eclampsia was due to auto-intoxication, but hyperexcitability of the spinal cord often played a prominent role. Delivery alone often sufficed to check the convulsive phenomena. In such cases the toxæmia could not be said to be remedied although the cause of spinal hyperexcitability was removed. Frequently, when albumen was absent from the urine, violent cephalalgia, vomiting, blindness, etc., were precursors of the eclamptic onset. Dr. Lanceraux was of opinion that a renal lesion diminishing the excretion of toxic principles was a primordial cause to be taken into account in dealing with etiological factors. Spinal hyperexcitability put in play and increased by labor was a secondary phenomenon. Milk diet and chloroform were of use but Dr. Lanceraux had found drastic cathartics of value at the onset. Dr. A. Robin was of opinion that spinal hyperexcitability was a factor to be little considered in view of the undeniable existence of toxæmia. Local bleeding in the renal vicinity had a physiological basis in view of the considerable communication between the subcutaneous and renal capsule veins. He was of opinion that agents like benzoic and salicylic acid exerted a beneficial chemical action on the toxic products in the circulation. Dr. Tarnier had had useful results from milk diet. He had seen albuminuric blindness in a pregnant woman disappear under it. Spinal excitability was merely a symptom.

J. G. KIERNAN.

PSYCHOLOGICAL.

PATHOLOGY AND SYMPTOMATOLOGY.

ISOTONIA OF THE BLOOD IN THE INSANE—Agostini publishes, (*Riv. Sperimentale* XVIII, III and IV, 1892) the results of his examinations of the blood of the insane in the asylum of Perugia. He studied especially the power of resistance of the red globules to the solvent action of distilled water as measured by the quantity of salt required to prevent this solution. This resistance has been named by Hamburger *isotonia* and the adjective *isotonic* applied to the saline solution that prevents the exit of the hæmoglobin from the corpuscle. The weaker this solution required, the greater is the resistance. In this investigation he used Mosso's

method, somewhat modified, in preference to those of Hamburger and Limbeck, and his results are summed up as follows: (1.) That the average physiological resistance in the sane varies in males, between gr. 0.44 and gr. 0.46 and in females between gr. 0.46 and gr. 0.48 of chloride of sodium to the hundred grammes of water. (2.) That the isotonic power of the blood in the insane is found in a majority of cases to be below the normal. (3.) That the maximum hypo-isotonia is met with in pellagra. (4.) That after pellagrous insanity, a considerable diminution in globular resistance is met with in depressed melancholic conditions, especially if accompanied with agitation; in idiocy, neurasthenia, in post-epileptic conditions, in post-hemiplegic dementia, and in paralysis of alcoholic or syphilitic origin. (5.) That a resistance below the normal, but less marked, is met with in maniacs, in states of maniacal excitement, in paralytic insanity, especially in its advanced stages. (6.) That it reaches the normal average in imbeciles, epileptics, hysterical cases, paranoiacs, and tranquil and senile demented. (7.) That the isotonic power is re-established slowly in cases where it has been lessened and in curable cases a return in the normal is a suggestion of a favorable prognosis. The quantity of hæmaglobin was tested with Fleischl's hæmometer and found to be least in pellagra, and nearly normal in epilepsy, paranoia, paralysis, imbecility, hysteria, and dementia. In idiocy hypoglobulia was rather common. Pellagra was also the form in which the specific weight of the blood was most frequently below the normal and the other forms of insanity held about the same relative positions to each other, as was the case with hypoglobulia. In the majority of the maniacal types the isotonic power was somewhat reduced, the proportion of hæmaglobin was below the normal, while the number of globules remained nearly normal. In the depressive types of insanity, in idiocy, in post-hemiplegic dementia, the isotonia is still lower, the quantity of hæmaglobin diminished with greater frequency and the percentage of hypoglobulia notably increased. The globular resistance is still further weakened in the toxic forms, also the richness in hæmaglobin, and the number of globules decreased. Pellagra takes the lead in all these respects. In the period of agitation, especially if prolonged, of epileptics, hysterical cases, paranoiacs and demented and after epileptiform and apoplectiform attacks, the isotonic

power is lowered, but without much modification of the quantity of hæmoglobin or the number of globules. In typical paresis the isotonic power is little inferior to the normal, and in most cases the hæmoglobin and number of globules are physiological, while in the periods of prolonged agitation that sometimes end in marasmus, all these are notably lowered. In imbeciles, epileptics, hysterical cases, paranoiacs and demented, the isotonic power and the richness in globules and hæmoglobin all oscillate near or about the physiological mean, in the majority of cases. The exact relation between the alteration of the blood and the insanity is not clear, but the author calls attention to the facts of the influence of the nerve centres on anæmia and *vice versa* as suggestive in this connection as, together with other facts, indicating a probable direct mutual connection between the nervous system and the sanguine crisis.

H. M. BANNISTER.

HÆMATOMA AURIS.—Pellizzi (*Riv. Speriment*, XVIII, II and III) sums up the conclusions of a paper giving the results of a clinical and bacteriological investigation of hæmatoma, as follows: (1.) The clinical and anatomical facts and the bacteriological and experimental observations lead me to admit an infective origin of the othæmatoma of the insane. In five cases I have been able to study there has been found a chain coccus of four to ten elements, very similar to the streptococcus of erysipelas and to the streptococcus pyogenus. (2.) It is of little importance to determine in which form of mental disorder hæmatoma is most likely to develop, and it is of no certain value as regards the prognosis of the insanity. (3.) The opening of the cavity of the othæmatoma and its washing out freely with an antiseptic solution is a very rational and necessary method of treatment. (4.) The opening should be done in the first beginning of the tumor; the washing should be repeated, abundant in quantity, and injected rather forcibly against the walls of the cavity. (5.) It is necessary when othæmatoma appears in a ward full of patients, to employ full antiseptic precautions, especially after it has been opened and freed of its contents, so as not to convey to other patients the germs of the disorder.

H. M. BANNISTER.

MENSTRUATION IN THE INSANE.—The *Wien. Med. Presse*, (No. 52, 1892) brings the following abstract of an article by H. Bissell in *Centralbl. f. Gyn.* No. 43: Almost all the patients showed greater irritability at the menstrual period, and often increased tendency toward violence. Even convulsions can occur. The convulsive tendency is especially marked at this time in epileptics, even with normal genital organs. *Per contra* the removal of lesions of the genitalia has usually little or no influence upon the epilepsy. The convalescent patients complained occasionally of dysmenorrhoeic symptoms. The severe cases were indifferent to such pains. Intermenstrual intervals of 3 to 5 weeks must be considered normal. In the chronic insane, the menopause has no influence upon the psychosis. In acute psychoses the menstruation usually returns with the improvement in general health. It is of bad prognostic significance if the mental improvement does not keep pace with the physical improvement. The menstrual irregularities and the mental disturbances are much oftener the results of the same cause than they are in the relation of cause and effect. General remedial measures are to be preferred to local treatment.

G. J. KAUMHEIMER.

PARETIC DEMENTIA AND SYPHILIS.—Dr. J. G. Kiernan says that the tendency of recent medical opinion is toward the view that P. D. has a syphilitic ætiology. He furnishes histories of interesting cases that have been under his observation. (*Alienist and Neurologist*, Jan., '93.)

GENERAL PARALYSIS AT PUBERTY.—While general paralysis is confined mainly to adult life it is by no means exclusively so. Dr. J. Wigglesworth (*British Med. Journal*, March) records two cases occurring in girls at 12 and 14 years, proving fatal at 16 and 18 years, respectively. Both previously intelligent, both said to have started from a fall, this, however, may have been simply an early symptom. Mental symptoms, those of slowly progressive dementia, without grandiose ideas; soon gradual failure of mental power, followed by slow progressive paresis of limbs, until absolutely paralyzed and contractures developed; epileptiform convulsions noted in each. Necropsy showed thickening and opacity of arachnoid with adhesion of pia mater to cortex, in one case decortication; enormous wasting of con-

volutions, great atrophy of cortex, whilst in one was an old, thick, organized subdural membrane. Analysis of these cases and six other published showed average age disease commenced at 14 years, average duration $4\frac{1}{2}$ years; five of the eight were girls, reverse proportion to that shown in adult paralysis; mental symptoms showed preponderance of demented type of general paralysis; signs of puberty did not appear at all or were arrested and tended to disappear, menstruation in females absent; and arrest of bodily development. The most prominent probable factors in production of the disease were heredity and congenital syphilis, traumatism being, perhaps, an additional cause in some cases.

TABES AND PARETIC DEMENTIA.—Dr. Courtois-Suffit passes in review (*Gaz. des Hop.*, Jan. 14, 1893) the various views anent the relationship of tabes and paretic dementia. He cites Raymond as stating (*Gaz. des Hop.*, April 8, 1892) that "clinical facts demonstrate that tabes and paretic dementia are two disorders frequently associated together. The morbid accidents often make their onset in tabetic form while paretic dementia closes the scene. Both have a common ætiology dominated by lues and heredity. In both the central lesions involve the same organic systems, so that it seems justifiable to ask whether the two disorders be not the same disease." This declaration of Raymond opened an active discussion before the Paris Hospital Society in which Ballet and Joffroy sustained the dualist view, claiming that coincident existence of two diverse disorders would explain all the facts cited by Raymond in favor of unity. Rendu sustained Raymond's claim for unity. Courtois-Suffit in discussing the question analyzes the various views as to the mental state of tabetics. He points out that at the period when tabes and dissimilar neuroses were confounded, good humor and resignation were said to be characteristic of tabetics. Later Duchenne (de Boulogne) and Trousseau in demarcating tabes took especial care to maintain the permanently perfect mental intelligence of tabetics. These views, as Dr. Courtois-Suffit remarks, must appear strange to clinicians who have given prolonged care to tabetics. Grisolle later went even further and stated that tabes and paretic dementia were absolutely dissimilar. However, observations were not wanting to contradict this

view. Towards 1830 Horn, Hoffman and Türck cited cases of tabes conjoined with parietic dementia. Following them Baillarger, Foville, Topinard, Jaccoud, Luys, Magnan, Westphal, Spitzka (*Jour. of Nerv. and Ment. Diseases*, 1877, Kiernan (*Jour. of Nerv. and Ment. Dis.*, 1878) and others insisted on the close relationship of the two neuroses. Foville claimed that this morbid association was due to the ascension from the cord to the brain. Magnan insisted that the tabetic symptoms often preceded the parietic dementia by years. Raymond (*Dict. Encyclopédique*, 1885) insisted eight years ago on the clinical significance of these facts. That syphilis dominates the ætiology of most cases of parietic dementia and tabes is pretty generally admitted. Fournier has examined 400 tabetics as to lues with the following results: First hundred had 89 syphilitics; second hundred 93; third hundred 91; fourth hundred 92, which gave an average of 91 syphilitics of the 100. The influence of lues on parietic dementia is not so readily settled as the difficulties of statistic collection are greater. There are decidedly contradictory opinions expressed. Lasegue in 1861 stated that there were both a true parietic dementia and mimicking parietoid states. There was no luetic parietic dementia but a luetic parietoid state. Diagnosis between them was impossible. Treatment could not settle it. Esmarch and Jensen in 1887 expressed the opinion that parietic dementia was always luetic. Griesenger (*Mental Diseases*) denied luetic ætiology while Kjellberg claimed that all parietic dementia was of luetic origin. Coffin claimed that precocious parietic dementia (evolving between 25 and 28) was most frequently, if not always of luetic origin. Fournier in 1879 discussed very lucidly the luetic ætiological question, deciding it affirmatively. He placed parietic dements in two categories. Those of classic type with regular symptoms and patho-anatomy and those in which the symptoms of parietic dementia were associated with symptoms foreign to this disorder. In cases of the second group, he claimed, there could be noted a mental state absolutely free from the ambitious delusions of true parietic dementia. Trembling of the tongue and much more of the upper lip was rare in pseudo-parietic dementia of luetic origin. There was a difference in the onset of the two types. The pseudo-parietic had a cachexia. The true parietic was florid. Curability was an excellent criterion. Meningeal sclerosis predominated in the luetic type;

encephalitic sclerosis in the true type. This view was adopted by Malet, Ball, Mickle and Schultze. At the same time the opposite opinion that no pathognomonic demarcation between the two types was possible gained many supporters. Foville insisted that differential criteria of luetic pseudo-paretic dementia proposed by Fournier were valueless. This view was also previously expressed by Lancereaux, Müller, Huguenin and A. Voisin. Kiernan in 1883 advanced the same view (*Alienist and Neurologist*, 1883). Since 1880 Christian and Magnan have denied that lues could produce parietic dementia. Régis, on the contrary, claimed that lues was a constant factor in 70 to 75 per cent of his parietic demented or if probable, not certain, luetic infection, was taken into consideration, the percentage rose to 94. In 1889 Morel-Laville showed that certain luetics became parietic demented more readily than others, whence he concluded that lues had at times a more positive neurotic tendency and that the character of both the predisposing and exciting cause must be taken into consideration. This opinion was essentially that of Raynaud. Reynier (*Rev. de Méd.*, 1889) claimed that lues and parietic dementia could co-exist in the same subject and pursue an independent course. The patho-anatomical lesions remain distinct as to seat and evolution. The occurrence of syphilis in parietic demented as found by observers varies greatly. Furstner has found 33 per cent.; Goldsmith announces the same; Ziehen has found 43 per cent. in the male, and 46 per cent. in the female; Binswanger 49 per cent.; Mendel 74.6 per cent.; McDowall 80 per cent.; Jespersen 82 per cent. Kjellberg claims that parietic dementia occurs only in organisms that are the victim of syphilis inherited or acquired. It is interesting to note in connection with this last dogmatic opinion how often lues has been demonstrated in early parietic dementia. Raymond cites (*Neurol. Centralbl.*, 1888) the case of a thirteen year old girl whose father had been infected two years before her birth. She remained in seeming mental and moral health until her thirteenth year, when, with the precursory phenomena of menstruation, the symptoms of parietic dementia and tabes coincidentally appeared. After similar careful analysis of tabes Dr. Courtois-Suffit comes to the conclusion that tabes and parietic dementia are both post-syphilitic in the majority of cases and that a local inherited predisposition influences the selection of the brain or cord.

Such a predisposition may lead to the simultaneous appearance of two distinct disorders like paretic dementia and tabes.

J. G. KIERNAN.

ALCOHOLIC PARETIC DEMENTIA.—According to Dr. Henry Berbez, (*“Rev. Internat. de Biblio. Med.”* Jan. 25) chronic alcoholism may, in a certain number of cases, terminate in paretic dementia. Such paretic dementias have nothing special in their symptomatology, but coincident with paretic dementia symptoms alcoholic psychic and neurotic symptoms may persist. In alcoholic paretic dementia, arterial atheroma, evident in sphygmographic traces, may be present. Paretic dementia must be distinguished from chronic alcoholism. This is difficult in intermediate stages where alcoholics are becoming paretic demented. It must also be distinguished from insanity of hereditary origin set in action by alcoholic action.

J. G. KIERNAN.

VARIATION IN TYPE OF PARETIC DEMENTIA.—Dr. St. John Bullen concludes from his own experience, supported by that of other specialists, that paretic dementia is undergoing a change of type. His conclusions are: 1. Less pure and sthenic type of mania, with more infrequency of occurrence. 2. Greater frequency of primary demented cases, and an earlier onset of dementia in cases where emotional manifestations are primary. 3. Possible increased ratio of melancholic to maniacal symptoms. 4. Modification in ages of patients attacked, in the duration of the disorder, and in its distribution as to sex. 5. Variation in the relative frequency in occurrence of convulsive and apoplectiform seizures; in a less sthenic character of the former, and in diminished frequency and fatal significance of them. 6. A possible concurrent change in the meningo-encephalic adhesions (post-mortem). (*Journal Mental Science*, Apr. 93.)

PERIODIC PARANOIA.—Kausch reviews the literature of the subject and reports a case of his own, from which he draws the following conclusions: (1.) Periodic paranoia, like other periodic psychoses, is found almost exclusively in persons of neurotic inheritance. (2.) The hallucinations and delusions do not obtain such complete mastery over the patient as in the ordinary forms of paranoia. (3.) The

recurring attacks present an unusual similarity in their symptoms. (4.) Unlike periodic mania and melancholia the patients are entirely or almost entirely sane during the intervals. (5.) The prognosis is unfavorable as regards a cure, but dementia develops less frequently than in periodic mania or melancholia. (*Archiv für Psychiatrie*, Vol. 14, No. 3.)

JOS. KAHN.

PARANOIA POLITICA.—Krafft-Ebing has added a chapter, bearing this title, to the last (third) edition of his work on Forensic Psychopathology. Owing to its great interest, its main points are here reproduced from *Wien. Med. Blätt.* No. 48, 49, 1892. In history as well as at the present time we meet with a great number of personages, who, dissatisfied with the social conditions surrounding them, feel themselves called upon to reform the world, or at least to supplant the old with something new. The main difference between the real genius and the pseudo-genius is that the genius has not only the mental organization to see the defects of his surroundings but also the mental force to expand his ideas for its betterment in a logical and useful way. The pseudo-genius, whose mental developement is one sided, resembles the genius in the originality of his views and his power of induction. In the expansion of these ideas, however, he becomes irrational and eccentric. The clinical manifestations of this disease presents an infinite variety. In many the intellectual force is slight and their mental product of such a nature as to bear the stamp of crankiness and not of genius. If aesthetic and ethical defects coexist, their ideas are often a priori monstrous or immoral. In many cases however, the mental developement is brilliant though onesided, and then the danger is imminent that the thoughtless crowd accepts the single brilliant thought as a new gospel. Very many of these abnormal subjects remain throughout life theoretical reformers and leaders of new movements, but this is but the prodrome of a severe and incurable mental state, paranoia expansiva. Such individuals easily lose the remnant of their mental stability under the suggestive influence of others or of troublous times. Then they are impelled to carry their ideas into execution and become leaders of riots or founders of new parties or sects. The stage of incubation is long, often reaching back to early youth. A dreamy fantastic behavior, a tendency to build air-castles of future

greatness, great self consciousness with seclusion from the vulgar herd, premonition of a great mission in life and brooding over inventions or social problems, are related in the early history of these cases. Frequently neuroses, (epilepsy, hysteria) are to be noted. Paralogism, disturbances of memory, sudden occurrence of primordial delirium (inspirations) are as common to this form of paranoia as to its other forms. It is noteworthy that these pseudo-geniuses, in times of a popular excitement easily carry away the masses. Lombroso has pointed out how many social rebels, communards and other reformers have been physically degenerate and that a considerable percentage was insane at the time of their appearance on the scene, or became so afterward. At last such subjects develop complete delusion of grandeur and if by any chance they ever attain to power, they become tyrants by virtue of their degenerative tendencies. If, before this, they are isolated in an institution, they simply explain the fact by the fear and jealousy of mankind in general, and continue to cultivate their ideas and discoveries. Their final destiny is inchoate delusions of grandeur, confusion and dementia. The forensic importance of this class is great indeed, as they often do not stop at words, or mischief making, but keep on to deeds such as attempts to murder those in power, mistaking the representatives of a system for the system itself. The true punishment for such "political murderers" is the asylum. They do not fear death as it stamps them as martyrs in the eyes of their followers. The murderers who attack rulers, ministers and others in power from personal motives are not members of this class. These belong usually to the classes of paranoia persecutoria or querulans, although mixed forms are possible. The author then gives a number of examples, the most prominent of which is Guiteau.

G. J. KAUMHEIMER.

SIMULATION OF INSANITY is the title of an original article by Dr. M. Holmboe in the February number of the "*Norsk Mag. f. Lægevidenskaben*". "Paul Zacchias, the founder of criminal psychiatry, taught, in 1650, that: "no disease is simulated more often and more easily than insanity." This teaching was the guide for physicians and judges in the diagnosis and disposal of doubtful psychic conditions, more especially in criminals, for a long period, and as is the case with many other old errors of science, this belief is firmly

fixed in minds of the laity of our day. At present, psychiatry views the question of frequency of simulation from a different standpoint. We know that, in normal individuals at least, it is not frequent; the idea of being considered and treated as insane is repugnant, and insanity is very difficult of successful simulation. The typical forms of insanity have disease-pictures limited to certain fixed bounds, even if pursuing very variable courses, that stamp the whole personality of the individual; and the atypical course pursuing degenerative forms have hereditary or at least very early developed signs of an abnormal mental, and often also physical organization. To feign insanity successfully requires not only a knowledge of the symptoms of the types of insanity—which can only be acquired by thorough study or long association with the insane—but also a coördinative ability, a domination of self, and an endurance, which is far from common. The simulator must, says Krafft-Ebing, be both poet and actor. Jessen and Schüle seem strongly to doubt that normal individuals can simulate insanity. The latter, with fifteen years experience as an alienist with several thousands of insane, claims not to have seen a single case. Leppmann says: “a consistent simulation of insanity, at least when continued over a considerable period of time, is such a rare exception that it hardly deserves consideration.” Hoffman (*Handbook of Forensic Medicine*), gives the subject but very little consideration. On the other hand, Binswanger, in the years 1880 and 1881, found 21 simulators in 73 criminals committed to the Charité. Fürstner, at Heidelberg clinic, found 12 in 25 observation patients. Snell has reported six cases. Lombroso found 13 in 300 insane criminals. The Danish alienist, Dr. Selmer, reported 5 cases out of 65 criminal patients. In Rotvold Asylum in twelve years I have only seen one case of pure simulation out of twelve criminals placed here for observation. All observers are seemingly agreed that simulation is more common in individuals more or less abnormal, than in persons psychically intact. In certain forms of insanity there is a tendency to exaggeration and simulation of certain symptoms, that belong to the disease. I will only remind the reader of hysteria and Hecker’s “Hebephrenie” (Jugendirrsinn). In every hospital for the insane is known the common, sudden outbursts of violent symptoms, in certain patients, whenever something is to be done with them they do not like. An

expert should approach a doubtful case, not to discover if *he be simulating*, but if *he be insane* or not. Experience teaches that the following forms are most often chosen for imitation. (Fürstner). (a.) Apathetic dementia, with either complete dumbness, or with amnesia and perversion of speech, writing and action. (b.) Attacks of excitement or unconsciousness, often accompanied by hallucination, which are continually referred to as having existed at the time the crime was committed. (c.) Maniacal conditions with violent and destructive tendencies. This form is oftenest adopted by persons suffering from other psychic anomalies. (d.) All sorts of varying indefinite symptoms, which are not to be classed under any special disease form. In the examination, mode of onset, symptom-complex, exaggeration and presence of anomalous symptoms, the adoption of symptoms by suggestion, hallucinations of sight, instead of the commoner ones of hearing and feeling, and above all, the absence of sleeplessness in maniacal simulation, the condition of nutrition and body-weight when a sufficiency of food is consumed, and the condition of the skin, circulation, and respiration are points to be carefully observed and weighed. The question of *mania transitoria* is one of the most difficult problems the forensic physician is called upon to settle. Apart from poisoning by alcohol, carbonic-oxide, illuminating gas and lead, attacks of temporary manical exaltation with consequent defect of memory principally occur in epileptics, either consequent upon an attack or vicariously. The physician must here, by repeated examinations into the anamnesis, satisfy himself as to the presence of an intoxication or an epilepsy. A person suspected of simulation should be placed under constant observation, day and night, in an insane or general hospital as soon as possible, and should decidedly not be isolated unless by reason of excessive violence. There are certain cases of psychic degeneration in which simulation and true abnormalities are so interwoven that it is impossible to accurately analyze the condition. Here the examiner should frankly acknowledge his inability to accurately determine the condition." The author reports three illustrative cases under observation at Rotvold asylum. 1. One of pure simulation in a forger. 2. One of simulation in a defective individual, who afterwards became insane upon recommitment to prison. 3. One of actual mania, suspected by the prison-physicians to be simulation. "The first case most nearly resembled

melancholia with stupor; the first probably real enough, being brought on by the shame of arrest and confinement, the second could not be successfully maintained under the constant surveillance at the hospital and therefore disappeared quickly. When the physicians then informed him that in their opinion he was simulating he freely confessed it and served out his sentence. The second case is of interest because it shows that the distance between actual insanity and simulation in defective individuals is not very great. The depressing influence of lonely confinement in prison causing him to one day simulate insanity and the next to suffer from an actual melancholia, with an exaggeration perhaps of certain symptoms. The third case is not the only instance I have had occasion to observe where an attack of acute insanity in a prisoner serving sentence, has aroused suspicion of simulation, which later on proved erroneous, and illustrates the necessity of constant surveillance, mainly that the presence or absence of sleeplessness can with certainty be determined."

HALDOR SNEVE.

RELATION OF ALCOHOL TO THE INHIBITIONS.—Dr. H. N. Moyer calls attention to the power of alcohol to weaken conscious control over the higher faculties, allowing the lower to act unchecked. In mental disease there is more or less loss of self control and alcohol has marked effect in such by still further weakening control and leaving morbid tendencies more free to act. People who are only partially insane are often made violent and dangerous by slight alcoholic indulgence. (*Alienist and Neurologist*, Jan., 1893.)

DIPSOMANIA.—Dr. J. Luys (*Annales de Psychiatrie et d'Hypnot.* Feb. 1893) claims that the periodicity of dipsomania is due to an interference with cerebellar innervation and that alcoholism, in cases where this does not occur, does not assume this periodic type. The opinion is based on hypothetical assumptions as to cerebellar functions.

J. G. KIERNAN.

MENTAL CONFUSION.—Dr. Charpentier under this title describes (*Rev. Internt. de Biblio. Med.*, Jan. 25) a mental state characterized by perturbation in the ideational sphere, consciousness, absence of delusion, and co-existence of inquietude. Often it cannot but be considered as an almost

physiological state resultant on passage from slumber to wakefulness in all adynamic states or cerebral congestive conditions. It may appear at the onset of many psychoses, as well as among chronic vesanias and epileptics. In all cases, however, the concomitant psychic phenomena (hallucinations, amnesia, stupor, mutism) mark the picture of mental confusion. It may exist alone, and constitute by its duration, a true pathological state. It is a rapid disordered progress of ideas before consciousness, preserved, but astonished and restless. The ideas are not erroneous but so varied and tumultuous in their course and so numerous that their numbers and disarray confounds the patient, who, incapable of directing his ideas although preserving his consciousness, falls into profound inquietude. Mental confusion has been styled, obvilutation, torpor, hebetude, intellectual vertigo and ideational chorea. What renders the case difficult is the fact that the patient renders an exact account of it only when cured. Furthermore they are apt to analyze the mental state they have experienced, and for the patient merely to describe this mental state does not suffice to reproduce it. How can, therefore, mental confusion be determined in patient who does not complain of it? Dr. Charpentier states that answers to simple terse questions (age, birthplace, colors) will indicate presence of attention but may appear incoherent because of rapid ideation. Usually the patients seem stupid. This is often the case with young female dyspeptics. Often mental confusion occurs in the morning after an insomnic night, a slumber too profound and prolonged or consecutive to excess. The patient appear lost; acts without will or without taking account of his acts. Mental confusion among the insane is found chiefly among the acute confusional lunatics or the convalescent; when it exists among these last they cannot be regarded as cured. Diagnosis is made only after recovery. Mental confusion should be distinguished from temporal mental enfeeblement of intoxications or infections (in these last there is a parallel enfeeblement of consciousness or absence of inquietude); from stupor (mutism, loss of consciousness of surroundings) and from vertigo (loss of consciousness and from involuntary movements). Mental confusion of prolonged or frequently recurrent type has a bad prognosis. It occurs in paretic dementia, chronic persecutorial vesanias and precocious dementia. It may be produced by suggestion, intimidation or surprise.

DELUSIONS OF PERSECUTION.—At a meeting of the East German Psych. Society, Neisser reported the case of a man aged 43 years who had delusions of persecution; he had been poisoned, attempts had been made to kill him, etc. He had been suffering from these delusions for many months, otherwise he was perfectly normal, conversed naturally and occupied his time with work. The case teaches that the claim of many authors that paranoia is characterized by fixed delusions of persecution is not broad enough to serve as a definition for the disease. Paranoia consists essentially in the tendency to evolve delusions of persecution. If a paranoiac could suddenly be robbed of all his delusions he would still be insane and in a short time he would have a new set of delusions. The diagnosis of paranoia is therefore dependent upon the demonstration of the tendency to form delusions. In the reported case this was entirely wanting. The existing delusions were probably the sequelae of some acute disease with delirium, possibly some organic disease of the brain, the result of syphilis. (*Allgemeine Zeitsch. für Psychiatrie*, Vol. 94, No. 3.)

JOS. KAHN.

SYMPTOMS OF MENTAL DISSOLUTION.—Dr. Savage read a paper with the above title before the Medical Society of London. He took as the basis of his paper chiefly his experience of seventeen years at Bethlehem Hospital, giving tables of all patients over sixty. These tables were only useful as general indicators of the way in which senile dissolution showed itself. Herbert Spencer had shown the uses of the study of mental dissolution as well as mental evolution. Natural decay followed certain lines but these differed in individuals. Premature decay occurred in certain diseases such as general paralysis of the insane, and also followed certain toxic conditions such as those due to alcohol. No single symptom was pathognomonic of dissolution, though loss of memory was the most common. In all stages of mental dissolution was loss of mental power which might be shown in different ways and in different degrees. There might be loss of power or loss of control. Dissolution was shown early by reduced power of acquisition, next by reduction of power of retention of recent impressions, next by defect of coördination, later by loss of control and of judgment. Dissolution was on the whole the reverse of evolution but did not follow same lines. He

began by an outline study of dissolution as seen in general paralysis of the insane, next with disorders of control of the general kind, such as hysteria, epilepsy, mania, melancholia and dementia. Taking the groups of symptoms before the individual ones he specially noted the danger of impulse in the maniacal and of suicide in the melancholic states. As to special or individual symptoms sudden loss of memory of recent events was most important, loss of emotional control next in frequency and even more important, as leading to sexual faults. There was a tendency to collect objects of all kinds, which might depend on several causes. Frequently a disregard of cleanliness which was hard to understand. Judgment might remain for a long time after the memory was weakened and the control defective. (*Lancet*, March 25, 1893.)

B. M. CAPLES.

MENTAL SYMPTOMS IN PARAMYOCLONUS MULTIPLEX.—Dr. Lemoine de Lille (*Bull. Méd. du Nord.*, Sept., 1892) reports a case of paromyoclonus multiplex in which peculiar mental symptoms were present. These were allied to those of the choreics and the victims of echolalia and echoskinesia and of the "tic" disorder described by Guinon and Gilles de la Tourette. This observation, tends, in Dr. Lemoine's judgment, to support his opinion that it belongs among the choreas and is a variety—not a genus.

INTERMITTENT MELANCHOLIA.—Schubert reported the case of a woman aged 40 years, of good family history, who for a year and a half presented the symptoms of melancholia. Then the disease changed and took on an intermittent type. One day she would be depressed and irritable, the next day she would be apparently well. When she was discharged after a year's treatment the intermittent melancholia was still present, but on the so-called bad days the depression was not so marked as it had been. While at home the improvement continued but her intellect always remained weakened. (*Allgemeine Zeitsch. für Psychiatrie*, Vol. 49, No. 3.)

JOS. KAHN.

SEXUAL PERVERSION AMONG THE INSANE.—Dr. Edw. Toulouse concludes after a critical analysis (*La Trib. Méd.* Mch. 16, 1893) that sexual perversion is pretty frequent among the insane. For purposes of study cases should be

divided into ideas of perversion and acts of perversion. Neither by itself is psychopathic, but both are far from infrequently met with in the insane, especially the degenerate. Ideas are more frequent among the insane than acts, probably because hospitals exercise an inhibitory influence. Sexual perversions may be the basis of delusions and be either systematized or non-systematized. Krafft-Ebing (*Psychopathia Sexualis*, Chaddock's Translation) had previously made the same distinction.

NEGATIONAL INSANITY. —Negational delusional states, according to Dr. Edw. Toulouse (*Gaz. des Hop.*, March 16, 1893) constitute a symptom-complex which requires for its evolution certain psycho-physiological conditions. Cotard has wrongly attempted to make of these delusional states a special psychosis, developing in anxious melancholiacs and terminating in particular form of megalomania. Dr. Edw. Toulouse considers there are two classes, one is a systematized delusional. The other is an unsystematized delusional condition. The first occurs in melancholia and other psychoses. The last is limited to the systematized delusional psychoses.

J. G. KIERNAN.

SOME NOTES ON SCOTCH ASYLUMS.—Dr. C. Eugene Riggs gives some notes of personal observations of the Scotch institutions. There are six groups into which institutions for the insane in Scotland may be divided: First, Royal and District Asylums; second, Private Asylums; third, Parochial Asylums; fourth, Lunatic Wards of Poorhouses; fifth, Training Schools for Imbecile Children; sixth, the Department for Criminal or State Patients in the General Prison. In Scotland about 24 per cent of all the insane are boarded out. Not more than four patients are permitted in one family. At the Barony Parochial Asylum at Lenzie, a suburb of Glasgow, the doctor found that no doors were locked in the asylum and that open grates were burning in the wards without screens. Dr. Riggs naturally speaks enthusiastically of Dr. Clouston of the Edinburgh Asylum. Speaking of restraint in this institution the Doctor says they use gloves and "a jacket whose sleeves are fastened to the body of it." In motor excitement Dr. Clouston regards hyoscine as the best agent. Dr. Howden of the Montrose

Royal Asylum stated that he had tried hypnotism on his patients and had found it only useful in insanity of a hysterical character. (*Minnesota Hospital Bulletin.*)

THERAPEUTICS.

PSYCHIC RESULTS OF CHLORALOSE TAKING.—Dr. Richet has (*La Trib. Méd.*, Feb. 21) found that chloralose given in two decigram dose to the kilogram of weight produces verbal blindness without interference with taste, hearing and smell. Tactile sensibility and sensitiveness to pain are abolished. Richet removed the gray substance of the cat's brain. Under such conditions the subjacent convolution is less excitable. When chloralose was given, this was more excitable. Dr. Laborde said that all substances causing hypnosis through action on gray matter had the like effect.

J. G. KIERNAN.

CHLOROBROM IN MENTAL DISEASES.—The excellent results obtained by the judicious use of "chlorobrom," introduced by Professor Charteris for the prevention and alleviation of sea-sickness, have been recently recorded in medical papers. As a hypnotic in melancholia and the allied mental conditions Dr. Keay has found chlorobrom reliable, pleasant to take, and free from risk and disagreeable after effects. In threatened melancholia, brain exhaustion, or breakdown, so commonly occurring in overworked and worried business men, insomnia is usually such an obstinate and painful symptom that the use of the hypnotic cannot be avoided. He prescribes an ounce of chlorobrom to be taken an hour before retiring. He finds that a sound sleep lasting from six to eight hours is almost invariably produced; that it is not followed by sickness, headache, or lassitude the next morning; that the stomach and bowels are not deranged, and that there is no impairment of nutrition even when the drug is given regularly for weeks. Another form of mental depression in which he has found chlorobrom valuable is the excited or motor variety of melancholia. It combines the sedative with the purely hypnotic action and acts like paraldehyde when given with bromidia or one of the bromides. When the excitement is considerable an ounce and a half to two ounces may be given. He has never known

unpleasant results to follow. One ounce represents thirty grains of chloralamid and thirty grains of bromide of potassium. Its discontinuance is not followed by any morbid craving. (*Lancet*, Mch. 18, 1893.)

B. M. CAPLES.

THYMACETIN IN INSANITY.—Dr. Morandan de Monteyel (*Rev. gen. de Therap.*, Jan. 30) concludes that thymacetin is without action on the different sensibilities, slumber, intellect, vaso-motor system, genital organs, secretions or intestines. In some cases, while without action on other reflexes, it causes double pupillary dilation, of half an hour's duration, during the first hour after taking. Thymacetin sometimes produces staggering and intoxication of short duration soon after taking. In three-quarter of the cases it occasions slight headache of several hours duration, usually coming on in the afternoon; rarely at night or on waking. Thymacetin increases muscular power for two hours after taking. It raises the temperature, sometimes by one degree. The rise and fall are gradual. It increases during two hours the number of inspirations without interfering with their rhythm. It increases for the same time arterial tension and number of pulsations without producing cardiac palpitations. In two-third the cases the use of thymacetin is followed by lassitude in the afternoon after taking, which may last till the next morning. Thymacetin in all de Monteyel's cases modified urination in three ways, it accelerated or altered the desire to urinate. It determined a urethro-vesical spasm or momentary retention or dysuria which were equally prompt in onset or disappearance. It sometimes occasioned, during passage of the urine, momentary urethral tingling almost amounting to burning. All these actions may be single or combined. Exceptionally it also causes ureteral pain. It causes, in two-third the cases, a bitter taste in the mouth with coated tongue but without effect on the breath. It usually causes an epigastric pain, often localized. It may produce persistent active thirst, nausea, vomiting, even gastric embarrassment, coming on after discontinuance of the remedy. Other than with the stomach habituation to the remedy is rapid, but the stomach becomes more and more sensitive. Paretic dementes are least affected. They do not suffer from anything but urethral or ureteral symptoms and these are less frequent than among the vesaniacs.

J. G. KIERNAN.

ADJUNCTS TO MEDICAL TREATMENT IN HOSPITALS FOR THE INSANE.—Dr. M. J. White says very little is to be hoped for in the relief of insanity by medical treatment alone. He advises moral suasion, homelike surroundings, vigorous exercise, Turkish baths, music, amusements etc. (*Am. Jour. of Insanity*, Apr, '93.)

HYDROTHERAPY IN THE TREATMENT OF NERVOUS AND MENTAL DISEASES.—Dr. Frederick Peterson has an interesting article on this subject in the *American Journal of the Medical Sciences* for February. Concerning the principles which govern the application of hydrotherapy he says: The following are the ordinary effects to be borne in mind in the application of hydrotherapy to disorders of the mind and nervous system: 1. Cold and warm baths affect the central nervous system in a reflex manner by stimulating the sensory nerves of the skin and the vasomotor nerves, and thus influencing the cerebral circulation. Cold excites and warmth diminishes irritability when thus applied. 2. Short cold baths, especially when combined with sprinkling, showering, or rubbing, are powerfully stimulating, exhilarating, and tonic. 3. Prolonged warm baths, steam and hot-air baths, and the hot pack, are relaxing, fatiguing and soporific. 4. A cold bath stimulates various reflexes in the body, such as peristalsis and the visceral reflexes in the sacral portion of the spinal cord. 5. Warm baths, by soothing peripheral nerve irritability, exert a calmative influence over the central nervous system. They mitigate reflex spasm and contractions in voluntary or involuntary muscle. 6. Cold applications to the skin stimulate vasodilator nerves, dilate the peripheral vessels, and increase blood-pressure. Warm applications also dilate superficial capillaries, but by diminishing the tone of the vessel walls they also reduce arterial tension. 7. To lower the irritability of individual nerves or of the entire nervous system, prolonged warm baths or the hot pack are indicated. 8. As many hydrotherapeutic measures tend to reduce temperature, it is important to remember that in non-febrile cases, in anæmic conditions, and in debilitated states, the temperature must be raised artificially before subjecting patients to hydropathic treatment. In some cases the temperature of the body on rising from bed in the morning is sufficient; in others a short stay in the hot-box may be needed. The following is an extract of his state-

ments in regard to indications for its use and the diseases to which it is applicable: Indications and Methods. *For tonic and refreshing effects.*—A cold rain-bath (50° to 70°), the patient rubbing himself while in the bath. Duration five to ten seconds; or the half-bath in a tub at 65° to 75° Fahr., ten to thirty minutes. By “half-bath” is meant only six to eight inches of water in the tub, in which the patient lies and splashes about and is rubbed by an attendant. The object in both is to get the exhilarating and stimulating effects of the cold, and also the mechanical effect of the water impinging upon the skin. Such a bath should be taken every morning. *For powerful tonic, revulsive, and derivative effects.*—The cold douche increases reflex excitability, and causes hyperesthesia of the skin. It is a powerful stimulus, mental and physical. By means of various nozzles it may be ejected in the form of a jet, a spray, a shower, a fan, and by alternating with hot and cold water we have what is known as the Scotch douche. Such procedures are indicated in lethargic and hysterical forms of insanity, where there is sluggishness of the intellect, apathy, stupor, catalepsy, etc., and in melancholic cases, and in all cases where there is anæmia, chlorosis or gastric disorders. *To produce sleep.* The prolonged warm whole bath is indicated. Temperature 70°–90°. Duration, one-half to two hours. When of long duration the patient may be suspended in a hammock made of a sheet. Indicated in cases of melancholia with excitement and in some maniacal conditions. As a general hypnotic agent, however, applicable to all forms of insomnia among the insane, the hot wet pack stands foremost. It is applied in this way: A blanket 9 by 9 feet is spread upon the patient’s bed, and upon this a sheet wrung out dry after dipping in hot water is laid. The patient lies down upon this, and the sheet is at once evenly arranged, about and pressed around the whole body with the exception of the head, after which the blanket is also immediately likewise closely adjusted to every part of the patient’s body. Other dry blankets may now be added as seems necessary. The patient remains in this an hour or longer; all night if asleep. *Maniacal excitement.* In this condition we all know how important it is to control motor excitement as much as possible in order to prevent the metabolic waste that progresses only too rapidly in many cases, often leading to death from exhaustion in a few days. Formerly we were accustomed to fasten the patient in bed

with a strait-jacket, and dose with hyoscyamine liberally, and this treatment undoubtedly saved many lives, but the fastening in bed has been to a great extent tabooed of late years. It is astonishing to note the good effects of hydrotherapy in many cases of this kind. The measures to be carried out are those indicated for insomnia. It is not often that patients laboring under great excitement can be placed in the warm bath, but the wet pack is applicable in nearly every case. It not only diminishes the erethism, but often brings about refreshing sleep, and always when kept applied prevents metabolic waste by motor excitement. I know of nothing that gives one better results in such cases than the wet pack in conjunction with overfeeding and occasional doses of hyoscyamine or duboisine if needed.

Congestive headaches. These headaches are quite common among the insane, and one of the best hydriatric procedures for their relief is a running water cold foot bath every evening. The object is to dilate the vessels in the feet, to derive the blood from superior parts. One must, therefore, prescribe a prolonged foot-bath, accompanied by rubbing and chafing of the feet for the mechanical effects of the water; or a strong fan douche of cold water applied to the feet very soon dilates the vessels and warms and reddens the feet. Actual experiment has shown that the temperature in the auditory meatus is lowered as much as one degree by a cold foot bath, and conjunctival vessels have been observed to contract.

Constipation. In the atonic condition of the intestines in most cases of melancholia and in some other forms of insanity, a powerful stimulus to peristalsis will be found in pouring water over the abdomen when the patient is in a tonic half-bath of low temperature.

Application of Hydrotherapy in Nervous Diseases. The methods of using hydriatric measures for the purpose of a powerful nervine tonic and derivative and to produce sleep and soothe nervous excitement and irritability, have been described above. I will add here some of the special indications in various nervous disorders in a brief and practical summary, alphabetically arranged.

Anæsthesia (cutaneous). Short cold jet and fan douches of strong pressure to the anæsthetic areas. Temperature, 50° to 70°. Duration one minute. Daily.

Angio-paralytic hyperidrosis of the feet. Prolonged cold foot-bath with chafing, or fan douche of cold water to the feet. Temperature, 60°. Duration twenty minutes for bath, five

minutes for douche. *Chorea*. Cold plunge beginning at 90°, daily reducing until 70° is reached. If anæmic, spinal spray, jet or fan-douches, at first warm until patient becomes accustomed to them, then gradually reduced to 60° or 50° (Duval). *Epilepsy*. Cold shower baths and cold sponge bath daily are beneficial. The shower baths should be rain-like in character—that is, not too forcible. In many cases a morning and evening bath (the “half-bath”) proves very serviceable. The “half bath” is taken in a bath-tub only half filled with water, and when taken should be accompanied by energetic rubbing of the patient by an attendant. This bath lasts five minutes, and the temperature should not be under 50° and not over 70° F. Where there is evidence of hyperæmia and increased blood-pressure in the head, the cold cap is useful. While these are the general indications for hydrotherapy, certain measures are often of use at the time of seizures. During a fit or during a *status epilepticus* it will be observed that there is one of two vascular conditions present: either the face is pale and there are signs of brain anæmia, and in this case warm wet compresses should be applied to the head and genitals, accompanied by friction of the trunk upward, the body being placed with head low and arms uplifted; or there is turgescence of vessels in the head, the face is red, the carotids beat strongly, and under such conditions a contrary procedure is indicated—cold compresses to the head, neck and genitals, strong wet beating of the feet, with a high position of the head. Daily applications for thirty seconds. *Headaches, neuralgias, and migraines*. If anæmic, heating cephalic compresses (wring out thin linen bandages in very cold water; wrap head in capeline manner, and cover with one or two layers of dry linen or flannel). Apply at bedtime. Upon removal, envelope head in dry cloth and rub it dry. If hyperæmic, leg bandages (a piece of towelling a yard long is dipped in cold water at one end—one third—thoroughly wrung out and wrapped closely about each leg, so that the wet surface is next the skin and the dry portion envelopes the wet two or three times. Or, wet stockings may be put on and covered with dry towels). These are applied at bedtime and retained through the night. In many headaches, especially of a congestive character, a prolonged cold foot-bath (twenty minutes, 60°) or the fan douche to the feet (five minutes, 60°) is very palliative. *Hysteria*. For *erethetic type*: Wet pack, 60° to 70° for one hour or more, followed by

massage (Putnam Jacobi); or the rain-bath at 75° to 65° for thirty-five seconds daily at twenty pounds pressure (Baruch). For *depressed type*: Cold affusions while standing in warm water, or hot-air bath, followed by rain-bath for thirty seconds at 85° , daily reducing until 60° is reached, this to be followed by spray douche for five seconds at 65° , or jet douche for three seconds at 65° to 55° . Reduce douche gradually to 50° or less, increasing pressure from two pounds to thirty (Baruch). *Hyperæsthesia* (cutaneous). Long continued cold douches to affected area. Daily twenty minutes at 70° to 80° . *Insomnia*. Wet pack; see above. *Impotence*. Brief cold sitz-baths. Daily, 56° to 64° , one to five minutes. The psychrophore, *i. e.*, application to prostate of cold by a rubber condom or bladder secured over a rectal irrigator *au double courant*. *Incontinence of urine*. In paresis of sphincter or detrusor brief cold sitz-baths, daily 56° to 64° , one to five minutes. Cold rain-baths (50° to 60°) and douches as general tonics. In spasmus detrusorum vesicæ, on the contrary, prolonged lukewarm sitz-baths, daily, thirty to sixty minutes, 70° to 90° . *Locomotor ataxia*. Prolonged warm baths, five to twenty minutes, 86° to 95° (Leyden). Hot-air baths to lower extremities followed by affusions or douches, 60° to 70° (Hœplein). *Neuralgia of all types, especially tic*. Hot-air bath, to perspiration, every other day, followed by gradually lowered douches (Baruch, Duval). *Sciatica*. Hot-air bath till patient perspires, followed by cold plunge, or douche gradually lowered to 65° . *Spinal cord affections*. In various chronic diseases of the spinal cord the daily half-bath, 65° to 82° , six to ten minutes' duration, with affusion and chafing, will be found useful. In some cases of compression and injury to the cord, in myelitis, and the like, where there is paralysis of the rectum and bladder and formation of bedsores or trophic lesions, resort may be had with advantage to the permanent bath (Riess). A sheet fastened in a bathtub makes a hammock in which the patient lies at first for an hour or so daily, later all the time, except at night, when he is put to bed. The water is kept at a temperature agreeable to the patient (88°). *Spinal irritation*. "Douche filiforme" as a rubefacient and epispastic along the spinal column; or rain-baths, 65° to 85° , and douches. *Spermatorrhœa*. Cold sitz-baths, five to twenty minutes, 50° to 70° , daily at bedtime; contra-indicated in sexual irritability and active pollutions, where prolonged warm or hot sitz-baths at 90° to 98° should be used. Finally, I need

scarcely say that if the alienist and neurologist are to make use of hydrotherapy at all, it must be borne in mind that precision of method is absolutely essential. As much care is necessary as in the prescription of drugs; for any violation of the principles or neglect of the modes determined by long experiment and experience is certain to be followed by unfortunate results.

PREVENTION OF SUICIDE IN THE INSANE.—Dr. Sutherland says that when we compare the number of patients who have suicidal tendencies with the actual number who commit suicide it must be confessed that we owe a heavy debt of gratitude to those whose skill and obedience this per cent. is reduced to so small a minimum. He thinks the relatives of the insane are responsible for the majority of suicides. They delay the admission of patients until some awful tragedy occurs; interfere unnecessarily with the treatment and endeavor to remove patients from care before they have properly recovered. Foolish relatives will often introduce pen knives, scissors, and other dangerous articles into asylum secretly, which are immediately taken away from the patients if the attendants know their work. It is only by careful and constant supervision that the number of suicides may be reduced to the minimum. A good superintendent will be particularly careful to instruct his staff to lock up all medicines, never allow patients to handle them and never serve out more than the exact dose indicated by the label on the bottle. These rules should apply to lotions, disinfectants, poisonous plasters, and especially pills, which the attendant must see that the patient swallows, or he may hoard up a poisonous quantity and take them all together. Keys must be worn on person, attached to attendant's wrist at night. Knives and forks used only in presence of an attendant, carefully counted before and after meals, locked up at other times; fire irons and brooms secured in cupboard; all broken glass and crockery immediately removed; all outsiders, workmen, etc., must receive especial instructions not to leave dangerous tools and implements about. Suicides are recorded from eating arsenical putty and rat poison taken from pocket of attendant. A large proportion of suicides are due to hanging. All nails, wires, ropes, sash lines, bell pulls, tapes and strings must be removed from reach of patient. No parcel should be sent into the wards until contents are examined. Even a

piece of pencil or an old spoon may be used for purposes of strangulation. By attaching a handkerchief to one of these, pushing pencil through key-hole, pulling it taut and then making a noose, a gallows can be arranged quite as effective as any public executioner's. Patients will swallow almost anything, sleeve buttons, sleeve links, pieces of towel, india rubber utensils etc. He reports a case of a male patient who swallowed a billiard ball, which sticking in pharynx choked him before assistance could be procured. When walking patients may jump from bridges or throw themselves under a passing train. All doors should open outwards; windows should be protected by steel bars; water closets must have neither bolts nor locks. Matches and all other inflammable material should be carefully concealed, the taps for turning on gas must be shut up in cupboards for which only attendants have keys. Gas jets should be quite out of reach of inmates. Attempts at suicide may be made by strangling with the hands or thrusting the fingers down the throat. A commissioner of lunacy was once murdered by a patient with a large nail sharpened to a point and thus made into a dagger the handle of which was composed of a piece of old carpet. Dr. Orange once received a violent blow on the head from a lunatic who used for his murderous purpose a large stone tied up in a stocking. If there is any doubt about the matter all patients should be considered suicidal until the contrary is known. Another frequent cause of suicide is where the relatives insist on removing the patient from the asylum before he is considered recovered by the authorities. Several cases are cited, one in which a man was taken home and cut his throat with a knife while at supper. (*Lancet*, Dec. 3, 1893.)

B. M. CAPLES.

TREATMENT OF HYSTERIA.—Modern ideas of Paul Blocq upon the psychic, external and internal treatment of hysteria appear in *Med. Record*, April 1. He regards hysteria, not as formerly considered—a general neurosis—but as a psychosis, ordinarily curable if appropriate measures are employed. The first thing to decide in hysteria and functional nervous disease is whether symptoms, especially psychic abnormalities, are due to an imperfect organization, as determined by heredity and environment, or to operation on nervous system of a vitiated plasma. Defective organization, sub-oxidation and alterations in composition of blood, predis-

pose to psychic disturbances. The various types of hysteria, the latent form, the minor, the major, mono-symptomatic require special consideration. In obstinate cases that resist all treatment, Blocq finds hypnotism a remedy next to isolation as a measure directed to the psychic condition. In latent or minor hysteria he emphatically protests against hypnotism; in mono-symptomatic hysteria without convulsive attacks, everything must be tried. He considers external treatment—hydrotherapy, electrotherapy, mechanotherapy—as next to psychic treatment. Cold affusion—douche or shower—once or twice daily most valuable of external measures; cold pack or sponging may be substituted; sea bath of three minutes in mild climate admissible; faradism acts well in few cases, but the static current is most beneficial. Mechanotherapy, gymnastics, massage, systematic movements are beneficial. The internal use of bromide salts is useful only to aid in diagnosis between epilepsy and hysteria. Monobromide of camphor, pill form, three grammes three times a day has been well used. Valerian and valerianate of zinc or copper may give temporary relief. Active treatment during hysterical attacks, ether and the bromide of ethyl; as narcotics use sulfonal or chloral; because of frequent predisposition to morphinomania avoid opiates. Surgical interference only allowable when deformity due to fibro-tendinous shortening exists after spasmodic contracture.

AN EPIDEMIC OF HYSTERICAL CONVULSIONS CURED BY HYPNOTISM.—Dr. L. Hirt reports an epidemic of hysterical convulsions in a village school. 20 girls out of 38 in one room, ranging from 5 to 12 years of age, were affected. All but three of them recovered during vacation with but slight treatment. These three, who were the first attacked, showed absolute inability to walk, and tremor, followed by convulsions, delirium and unconsciousness, the attack lasting from one-half to three hours. These were cured by hypnotic suggestion. None of the 32 boys in the same room were affected. (*Berlin. Klin. Wochenschr.*, No. 50, 1892.)

G. J. KAUMHEIMER.

EPILEPSY CURED BY HYPNOTISM.—Dr. Thomalla reports three cases of epilepsy of 12 to 17 years duration, the frequency of the convulsions varying from three per week to one a day, cured by hypnotic suggestion. In explanation

he assumes that the arterial spasm upon which the epilepsy depends is relaxed during hypnosis and that by repeated sittings this is intensified and made permanent. (*Wien. Med. Wochenschr.*, No. 47, 1892.)

G. J. KAUMHEIMER.

HYPNOTISM, HYPNOTIC SUGGESTION AND CRIMINOLOGY.—Under this title Prof. W. Benedikt, of Vienna, publishes a characteristic article in *Wien. Med. Wochenschr.*, No. 44, 1892. He begins by pointing out that in 1889 he first raised his voice against the errors and extravagances of the modern science of hypnotism. "Suggestion therapeutics, with all its humbug and nonsense, has the advantage that 'traitment moral' remains as one of the resources of modern medicine, although in the routine way it is used nowadays, it is useless. Traitment moral requires a psychologist and thinker to conduct it." He denies that it has been proven that a crime was ever committed under the influence of hypnotic suggestion. Such things are done in experiments in the clinic or the parlor, but we have no data as to how often the subject "acts" in the fullest sense of the word. He also denies the possibility of such crimes. "A crime, especially of a professional character, requires a certain skill, which is the result of talent, teaching and practice, together with complete presence of mind and propitious circumstances." How can a hypnotizer foresee all the latter. "*The question of the commission of crime through hypnotic suggestion and of the responsibility of such criminals, is wholly hypothetical*" (italics the author's). That crimes can be committed upon hypnotized subjects, B. does, of course, not deny. He absolutely disbelieves the many cures reported of alcoholism, morphinism, sexual perversions and other organic and functional troubles by this means. "The defenders of trial for witchcraft can give better grounds for their standpoint than the apostles of the criminal by suggestion and of the cure of incurables by this method. The further study of hypnotism should, for the present, be turned over to a small number of men who are mentally and morally fitted for it."

G. J. KAUMHEIMER.

EDITORIAL.

THE NARROWNESS OF PROFESSIONAL LIFE.—A lady recently remarked in the hearing of the writer that as Dr. W. never talked about medicine she could not think he knew much about it. Though her opinion of his attainments could not have been valuable, by her remark she at least paid the doctor the compliment of appreciating the fitness of things. Many physicians, or some physicians, from ignorance of other subjects must either discuss medicine or keep silent, and so they bore people with professional incidents that have no interest for those who are not morbid, and frequently make their medical friends weary with recitations of "beautiful cases." We think this habit shows a scantiness of general information that is reprehensible in any physician. A physician who is not ready on occasion to talk intelligently on politics, or discuss the recent progress of science, or pressing social questions, may be a competent physician, but he is neither an intelligent physician nor citizen.

It is quite within the fact to say that there is no profession requiring more general information or broader views of things than that of medicine. Anatomy and physiology lead to the study of comparative anatomy and these include embryology. Materia medica should start from botany, chemistry and climatology inevitably lead to the study of geology, if one has the spirit of a student and cares to ask the *why* of things. There is scarcely any branch of knowledge unrelated to medicine and the physician who has high ideals and cares for the advantages of a well rounded life will broaden himself with liberal studies. In such studies, properly collateral to medicine, there are great practical advantages in addition to those not so immediately practical, by which various interests are added to life, and its enjoyment increased by widening the mental horizon. The success of the competent physician is largely due to constant and correct application to particular cases of the

conclusions from experience and study. Medicine, more than most professions, makes sudden and severe demands upon the judgment and the latter is certainly strengthened by exercise on subjects outside the narrow lines of technical knowledge. No one can make an excursion into outlying regions of knowledge without coming back with his perceptions sharpened by the journey, and in the case of the physician the advantages of having other interests that are educative, are very great, for in addition to the resulting mental development mentioned, one thereby gains truer views of professional subjects which otherwise would seem but dry and tasteless things.

Another great advantage of this general culture is the fortunate mental *habits* which are developed, for not only the success but the pleasure of life depends largely upon mental habits. Habits of investigation, habits of interest in many things that relieve the monotony of life, habits of interest in the world's progress, habits of hospitality toward new ideas, fondness for art, music, the drama, all these habits are educative in the highest sense and not only bring to life a higher order of pleasure, but they help to keep off that blight of pessimism that falls upon an old age of narrow interests. If we are to live the natural limit, old age is inevitable, and yet strangely enough most men dread it, and they dread it partly from the pessimistic coloring that many old people with their limited interests in life insist on giving it. If life is rightly utilized old age is no less enjoyable than earlier life though it has its special tastes and limitations. Youth has its enthusiasms that bring a quality of enjoyment that can never recur in life; maturity its pleasures by the side of which those of youth seem simple and trivial, and as the autumn of life draws on there are pleasures none the less keen because the mental pace slackens and early enthusiasms sober. Each one of us is preparing himself for some kind of an old age, by his studies, his thinking and his mental methods. If we con-

fine life to the hard and dull round of professional work, the day will come when, work being given up, life will be without interest. This result can be avoided by persistent habits of culture which, going beyond the narrow bounds of professionalism touch life at many points, making its decline not only full of interest, but happy and beautiful.

Emerson said: "Let each day be the best," and he thereby showed the insight of a philosopher whose life exemplified his philosophy. By his mental elasticity, by his love of knowledge, by a persistent mental culture, he *grew* throughout his life. That such a life is a pattern for all is no idealistic rendering of a theory, but the sober statement of a fact. When we see, as we do, that such men struggle like others with the plain and homely facts of life, that they bear their part of care and disappointment with uncomplaining courage, and from their hard and commonplace experiences build the fine structure of character; when we see their modesty in success, their mental breadth, their largeness of life, we are encouraged to adopt mental methods and higher ideals that help life to broaden as it lengthens. If there is any man who can be specially benefitted by this mental broadening, it is the physician, if there is any one whose work affords the opportunity it is his.

MENTAL EFFECTS OF DRUGS.—The effects upon the nervous system of stimulants and narcotics is a very interesting and important matter. It is a curious and interesting fact that almost every race of people makes use of some stimulant or narcotic for purposes of inebriation. The savage finds relief from the monotony of his existence by occasionally imbibing his favorite liquor, and the civilized man finds a like relief from the tension and worry of life in the use of opium or alcohol. We do not believe that the universality of such habits is evidence that there is a physiological demand for them, any more than the commonness of profanity is evidence that it is a necessary accompaniment of speech, or that the frequency of insanity or syphilis is a

reason for thinking them normal to the race. Men have simply taken advantage of what nature or art has put within their reach because they derive a certain amount of sensual pleasure from the indulgence.

Physicians have long differed concerning the effects upon the nervous system of such substances as alcohol, tea, coffee, etc., and for this reason the recent experiments of Münsterberg, summarized in a recent issue of the *Journal of Nervous and Mental Disease*, are of special interest. His experiments were with the drugs, opium, bromide of sodium, quinine, phenacetine, antipyrine, and such liquors as beer, cognac, Rhine and Bordeaux wine. The experiments related to tests of the auditory memory by requiring the subject to write down series of figures or consonants spoken to him, by adding series of figures, and also by naming colors and counting letters. Beginning first with alcoholic liquors he found that beer increased mistakes of recollection as much as 12 per cent in every case. After the stimulating effects had passed off it was found in some cases that the memory was better than usual. In regard to beer, cognac, Rhine wine and Bordeaux, the first was most inhibitory in its effects, the last less so. Antipyrine increased the number of memory errors. The action of quinine was very variable. Tea always increased memory capacity, coffee in a less degree. Phenacetine increased normal memory. In efforts of simple addition, alcohol sometimes increased and sometimes diminished the mental capacity, the results being contradictory. In the counting of letters a person who normally could count 406 letters in two minutes could, under the influence of beer, only count 332. In naming colors alcohol, in nearly every case, was inhibitory, while with tea and coffee the capacity was increased. The ability of letter counting per minute was increased about one-third by tea after the first hour and still more at the expiration of the second. In all these cases antipyrine, opium and bromide of sodium lessened capacity and phenacetine increased it. In the opium tests opium increased

and bromide diminished capacity. Opium was only helpful in one mental process, auditory memory, and bromide of sodium helpful in the simple process of addition. The results of these experiments are the more valuable because of their substantial confirmation of medical experience everywhere. Physicians are more and more of the opinion that the stimulating effects of alcoholics are transient and variable and they are now more ready than formerly to recognize that alcohol has a secondary effect that must also be reckoned with and this secondary or anæsthetic effect, now better understood, has had much to do with its diminished use. It is a law of therapeutic action that a small dose of a medicine has the opposite effect from a large dose and the effects of alcohol illustrate this law. The small dose, in some cases at least, quickens the heart throbs and excites the mental processes but larger doses depress the vital process and anæsthetize the nerve cells. This anæsthesia of alcohol is an important one to take into account, for it is the effect that it produces as it is commonly used. When a man's tongue is loosened by drink it is not always, as is supposed, because he is stimulated, but because self-restraint is weakened and this brake being taken off, the wheels of mentality turn unchecked. This, in place of being stimulation, is really anæsthesia, an early stage of alcoholic narcotism. Münsterberg's observations with both tea and coffee are confirmed by common experience, though there are great individual differences. If there are any true physiological stimulants tea and coffee seem to deserve the title.

DR. RICHARD DEWEY.—Last year there was a political revolution in Illinois and among other results, the public are now witnessing the "resignation" of various superintendents of public institutions. It is no exaggeration to say that Dr. Dewey possesses rare qualifications for the position of superintendent of an insane hospital; long experience, executive ability, rare tact in dealing with the insane, delicacy of feeling, a fine sentiment,

and a mental elasticity that has survived the harsh and trying experiences of institution life. When the doctor went to Kankakee he inaugurated the method of cottage care of all classes of the insane upon a scale never before undertaken in this country. The difficulties he had to meet were such as no ordinary man could have successfully overcome; but he was equal to the occasion, and with rare management, with patience and persistence and a quiet courage worthy of a better fate, he built up an institution that is considered a model not only in America but across the ocean. The doctor has located in Chicago with the intention of practicing his specialty and we wish him great success.

POLITICIANS AND BOSSES.—Politics should have nothing to do with the management of public institutions, for there, at least, its touch is death to good order and efficiency. The history of Insane Hospitals in this country shows that their usefulness has been impaired whenever party politics has interfered in their management. Indeed, no sensible man need be told that such would be the result. The future historian, when he sits in judgment on this age, will have a worrying task trying to reconcile our fine pretensions with our practice, whereby we build magnificent institutions for the dependent classes and then, in some instances at least, hand them over to the uses of the party boss. Concerning politics and politicians we do not agree with those who consider the latter a bad lot and politics necessarily disreputable, nor do we endorse the practice of calling honorable politicians “bosses” and holding them up to ridicule. Here as elsewhere it is necessary to discriminate. For a politician properly so called we have a high respect. Some of the most honorable men we know are politicians, whose lives are clean and patriotic. The politician is essential to good government. Without him political order would be still a dream, and history a tale of unorganized and savage contests.

That the term has been and is misapplied is unfortunate, and honorable public men have to suffer from its misuse. The term is wrongfully applied to party workers whose party relations are secondary to their personal interests, men who are in no proper sense politicians, and who pretend to a political decency they neither themselves possess nor appreciate in others. By sheer luck they sometimes occupy high positions, but their proper sphere is that of a ward boss where, though less conspicuous, they are active and often dictate the policy of those politically above them; like Comanche Indians, they ambush honorable public officials who come within range of their political tomahawk.

Of all God's creatures the insane are the most helpless and unfortunate. Deprived of everything which life prizes, possessed by the torturing fancies of disease, yet keenly sensitive to their fate, they sit in helpless isolation appealing simply for justice and kindness. In view of this there is something coldly savage in the process by which these institutions are sometimes tossed about from party to party as if the interest of the "politician" were superior to the rights of the inmates.

In spite of the shock which is sometimes administered to our faith, we firmly believe that the world is growing better, and that our politics moves with the procession. We believe that the festering vices of our time, political and social, the crudities and cruelties and savagery that sometimes occupy high places in the social synagogue and wear the fair name of civilization, will disappear, and with them will go all that motley throng of evil things that thrive upon the cupidity or misfortunes of mankind. When that good time comes and the party boss is a thing of history, he will serve only to point a moral to the civilized, who will wonder at the crude social state that made his calling and election possible.

LEUCOCYTES AND BACTERIA.—In his address at Owen's College, Manchester, Dr. Broadbent spoke of the manner in which alcohol, chloral, and other substances may aid the fatal work of certain pathogenic microbes. It is well known that the leucocytes under certain conditions attack and destroy bacilli that would otherwise produce disease. The former are, therefore, a home guard, always on duty to attack and, if possible, destroy the foreign enemy. Inflammation around a wound is a result of this conflict, the smoke of battle that shows that the leucocytes have met and are trying to destroy the invaders. If they fail the microbes pass on to the glands and here another battle ends in inflammation or abscess, and if the leucocytes are again defeated, general infection follows. This is not a theory, for many observers have actually seen leucocytes take bacteria into their interior and destroy them. It is known that certain substances paralyze the action of leucocytes, entirely suspending their power to destroy bacteria. A rabbit after having bacteria injected under its skin has inflammation and perhaps an abscess at the spot, but recovers. Another rabbit has administered to it a similar injection and at the same time an injection of chloral. The chloral paralyzes the leucocytes, they do not destroy the bacteria and the rabbit dies. Alcohol has a similar effect so that it predisposes to septic infection. Doyen found that guinea pigs died when cholera microbes were administered to them if at the same time alcohol was given. Dr. Ridge has shown that even such infinitesimal quantities of alcohol as one part to 5,000 cause a more rapid multiplication of bacteria, so that there is no longer any doubt that this substance renders the system more susceptible to microbic infection.

FATIGUE OF NERVE CELLS.—Dr. Hodges has continued his researches, noticed in a previous issue, on changes due to functional activity of nerve cell. He experimented by producing artificial fatigue

of ganglia of animals by electricity and also by observing the effects of normal fatigue. His observations show that the results of fatigue of nerve cells are easily demonstrable. As a result of fatigue the nucleus of a nerve cell decreases in size and assumes an irregular appearance. In the spinal ganglia the protoplasm of the cell shrinks and becomes vacuolated and in the cerebral and cerebellar cortex the shrinking is more marked. Under fatigue the cell protoplasm does not stain so readily. After rest the normal structure of the cell is restored. The details of his investigation are given in a recent issue of the *Journal of Morphology*. These studies are confirmatory of the view that nerve cells, if not the sole source, are certainly the chief source of nerve energy and show that its evolution and expenditure are processes the results of which are within the reach of observation. Thus step by step do we encroach upon the territory of the unknown. Possibly some day we may be able to see the crash of molecules by the fall of which nerve energy is set free, or with the better methods and the sharpened vision of the coming scientist we may see the molecules as they are placed in position in unstable compounds, ready for the fall which liberates their imprisoned energy.

ASYLUM AND HOSPITAL REPORTS.

Fifth Annual Report of the Managers of the Utica State Hospital at Utica, for the year ending Sept. 30, 1892.—The number of patients admitted during the year were 345, and the total number treated 811. The recoveries computed on admissions are a little over 25%; computed on discharges they are a little over 30%. This reduced percentage is explained by the statement that Superintendents are now more careful to specify as recovered those whose mental poise has been entirely re-established. The Superintendent says, with commendable frankness and we think truly, that insanity is in the main a chronic disease. The Superintendent notices the completion and opening of the new group of infirmary buildings attached to the hospital, which will accommodate

about two hundred persons. In this department they have adopted the very sensible plan of having male and female patients dine in the same room. The training school for nurses of this institution has 59 on its roll of attendance.

Seventh Biennial Report of the Trustees and Officers of the First Hospital, Saint Peter, for the Biennial Period Ending July 31, 1892.—There were 599 patients in this hospital during the year, the whole number treated during the year being 1573. A training school for nurses is connected with this institution. Since the report was written Dr. Bartlett has resigned.

Fifth Biennial Report of the Northern Hospital for the Insane, Winnebago, Wis., for the Two Fiscal Years Ending Sept. 30, 1892.—During this time 698 patients were admitted to the institution. The capacity of the hospital is 638. The Superintendent very properly protests against the admission of epileptics into the insane hospitals. The death rate in this institution is gratifyingly low, being about 6%. Dr. Wegge, the superintendent, suggests that a cottage be built for the isolation of patients with infectious diseases. Such a building as this should be attached to every public institution.

Annual Report of the Asylum for Chronic Insane, Milwaukee County, for the Year Ending Sept. 30, 1892.—The annual report of Supt. Wilkins shows that at the close of the year there were 132 patients in the asylum. The asylum is thoroughly equipped and seems to be doing excellent work. The report of the medical officer, Dr. T. H. Hay, states that there have been only five deaths during the year, and in all these cases the ages ranged from 65 to 85 years. This is a compliment to Dr. Hay and to the management of the institution.

NOTES AND COMMENTS.

THE lectures delivered by Dr. E. C. Seguin before the Medical Society of the University of Toronto, on Certain Questions in the Treatment of Neuroses have been translated into German by Dr. Wallach of Frankfort-on-the-Main, and published by G. Thieme, Leipzig.

Dr. H. M. BANNISTER has translated the well-known work of Dr. E. Règeis of Bordeaux, on *Mental Medicine*. The work is now in press at the Utica State Hospital. The work has had a large sale in Europe and we predict for it a hearty welcome from the Profession in this country.

DR. GIBIER states in the Therapeutic Review that he examined microscopically some specimens of rags, imported from Bremen and "disinfected" by the government. Some of the pieces had on them spots of blood and pus indicating that they came from some hospital. Among numerous pathogenic bacteria found were those of erysipelas and he estimated that there were from 400,000,000 to 800,000,000 living microbes per drachm of the rags examined. Independent of the special danger from cholera this year there is no excuse for the official carelessness that would at any time permit such disease-bearing material to enter the country. That the disinfection said to have been performed on these rags was inefficient is shown by the fact that torulæ were found, for these can not survive longer than a few moments at a temperature of 158 degrees F.

IN Dr. Forel's latest investigations on the ninth, tenth and twelfth nerves he ascertained that there is no crossed root in the motor part of these nerves as maintained by Obersteiner. The latter, in a recent issue of the *Journal of Comparative Neurology*, says that the distinction between ganglion cells and neurogia cells must be dropped, as there are probably cerebral histological elements intermediate between the two. Nansen holds that the axis-cylinder consists in a number of closely arranged primitive tubes. These are composed of extremely fine connective tissue sheaths with viscous contents. This latter substance is the physiologically active part of the axis-cylinder.

AT the competitive examinations for the positions of internes at the Cook County Hospital there were 31 examined. Of the eight successful candidates, five were graduates of Rush, two of the Chicago Medical College, one of the College of Physicians and Surgeons.

A HOSPITAL for epileptics is now open for the reception of patients in Philadelphia. It contains two general wards and nine separate rooms. Dr. Wharton Sinkler and Dr. Charles K. Mills are attendant physicians.

PROFESSORSHIP OF MENTAL DISEASES.—The Trustees of the University of Pennsylvania have elected Dr. Chas. K. Mills Professor of Mental Diseases and of Medical Jurisprudence. The lectures on mental diseases will be chiefly clinical. Dr. Mills' large experience as a specialist in nervous and mental

diseases has specially qualified him for the place and the appointment is a fitting reward of his high attainments. We congratulate the university in the wisdom of the choice.

BOOK REVIEWS.

LECTURES ON MENTAL DISEASES, DESIGNED ESPECIALLY FOR MEDICAL STUDENTS AND GENERAL PRACTITIONERS, by Henry Putnam Stearns, A. M., M. D., Physician Superintendent of the Hartford Retreat, Lecturer on Mental Diseases in Yale University, Member of the American Medico-Psychological Association, Member of the New England Psychological Society, Honorary Member of the British Psychological Association, Honorary Member of the Boston Medico-Psychological Society, Member of the American Medical Association, etc., etc.; with Illustrations. Philadelphia: P. Blakiston, Son & Co., 1012 Walnut street. 1893.

This volume comprises the lectures delivered by the author on Mental Diseases at Yale. The first two lectures are devoted to the physical basis of thought and hallucinations and illusions. The latter chapter is an excellent one, also the chapters on imperative concepts and delusions. The classification of mental disorders adopted is to be commended. We do not, however, see any good reason for calling paranoia "primary delusional insanity." The description of various forms of mental disorder is excellent. The style is clear and forcible. As a whole the work is practical and answers the purpose excellently as a text book on mental disorders. We do not know of a better work for general practitioners or students of medicine than this one.

A PRACTICAL TREATISE ON MATERIA MEDICA AND THERAPEUTICS, WITH ESPECIAL REFERENCE TO THE CLINICAL APPLICATION OF DRUGS, by John V. Shoemaker, A. M., M. D., Professor of Materia Medica, Pharmacology, Therapeutics, and Clinical Medicine, and Clinical Professor of Diseases of the Skin in the Medico-Chirurgical College of Philadelphia; Physician to the Medico-Chirurgical Hospital; Member of the American Medical Association, of the Pennsylvania and Minnesota State Medical Societies, the American Academy of Medicine, the British Medical Association; Fellow of the Medical Society of London, etc., etc. Second Edition.

Thoroughly Revised. Two Volumes. Philadelphia and London: The F. A. Davis Co., publishers. 1893.

These two volumes, comprising over a thousand pages, are a thorough and systematic exposition of the subject treated. There is hardly anything that the practical physician will want to know, from pharmacy to prescription writing, medical electricity and the therapeutics of drugs that can not be found in these pages. A long chapter on pharmaceutical nomenclature and classification gives quite a full and systematic sketch of subjects and methods of this department. Likewise, the chapter on prescription writing is excellent. The chapter on electro-therapeutics is thoroughly practical and is sufficiently full for all purposes. This alone will take the place of an ordinary volume on the subject. The author has also done well to introduce a chapter on massage and the rest cure. Chapters on pneumotherapy and hydro-therapy are introduced. There is a section on mineral springs, climatology, diet in diseases, and on music. The second volume treats of the articles of *materia medica* more particularly and is systematic and, eminently practical. Altogether this is one of the most useful books that has been written on the subject and is one which no practical physician can afford to be without. Subjects are considered with sufficient fullness and yet a reasonable brevity is observed. Everything is systematically arranged and the style of the author is direct and clear. We recommend it as a model work upon the subject.

PSYCHOPATHIA SEXUALIS, WITH ESPECIAL REFERENCE TO CONTRARY SEXUAL INSTINCT.—A MEDICO-LEGAL STUDY.—By Dr. R. von Krafft-Ebing, Professor of Psychiatry and Neurology, University of Vienna. Authorized Translation of the Seventh Enlarged and Revised German Edition, by Chas. Gilbert Chaddock, M. D., Professor of Nervous and Mental Diseases, Marion-Sims College of Medicine, St. Louis; etc. Philadelphia, 1893. The F. A. Davis Co.

This is a work which will be read with interest and laid aside with mingled feelings, of pity for the unfortunate victims of a mental state they are in no wise responsible for; of disgust at the depths of human depravity revealed. Not that the author deviates one iota from the strict line of his subject in order to introduce extraneous matter. The

aberrations of the sexual sense, all over the civilized world, have been attributed by moralists and jurists to vice, pure and simple. It has been the work of Krafft-Ebing, above all others, to show that many of these delinquents were the victims of a degenerate ancestry, a vicious environment, or a congenital mental defect and that their practices were as natural to many of them as those of normal men are to these. The work, which is addressed "to earnest investigators in the domain of natural science and jurisprudence" opens with a short consideration of the Psychology of the Sexual Life, followed by its Physiology. The General Pathology, occupying nearly three hundred pages, is devoted to the consideration of the various clinical forms which sexual aberration may assume. Sexual anaesthesia, hyperaesthesia and paraesthesia, sadism and masochism in their various forms, fetichism and homosexuality are the main clinical divisions. The last mentioned condition is especially illustrated by acute psychical analyses written by highly educated urnings. The chapter on Special Pathology comprises the pathological *vita sexualis* of the various psychoses. The author is firmly convinced of the very great value of hypnotic suggestion in many cases of acquired sexual perversion even when a congenital taint underlies it and it must be said that his examples are convincing. Within a very recent period, a case of murder brought on by female homo-sexual love has attracted a good deal of attention. At the same time, two similar cases, one male and the other female, were reported in the daily press. Krafft-Ebing's work should be in the library of every prosecuting attorney in the country, as well as of every physician who is at all interested in mental or sexual diseases. The translator has done his work thoroughly, and has succeeded in preserving the style of the original in a marked degree. The mechanical execution of the work is good. A consideration of the legal aspects of sexual perversion in the light of Austrian, German and French statutes, closes the work, which is a monument of industrious gleaning in a field heretofore but sparsely cultivated. It is to be expected that as the knowledge of this subject becomes more diffused in this country, numerous instances of perverse sexuality will be found.

THE YEAR-BOOK OF TREATMENT FOR 1893, A CRITICAL REVIEW FOR PRACTITIONERS OF MEDICINE AND SURGERY, by

twenty-two contributors. Philadelphia, 1893, Lea Bros. and Co. This little work, which is intended to be a compilation of the therapeutic advances found in periodical literature in 1892, is the work of twenty-two well-known English medical men. One of the first things that will strike the attentive reader is the small number of American authors or periodicals quoted. While it is hardly to be expected that a complete resumé of the therapeutic work of 1892 can be given in a volume of less than five hundred octavo pages, the information contained in the book is reliable and will be of great assistance both to the busy practitioner and the medical writer.

WE have received a circular announcing the early appearance of the *Revue Neurologique*, a French journal to be issued twice a month under the editorial management of Drs. Brissaud and Marie. This journal, while it will have original articles, will be devoted generally to publications of abstracts and reviews of articles appearing in other journals. In other words, it is upon the plan of the REVIEW OF INSANITY AND NERVOUS DISEASE. We wish the new journal success, and have no doubt that it will meet with it. Current medical literature is so vast that it is absolutely necessary to a large number of physicians that it be obtained in some condensed form. Such journals answer this demand, and we believe the principle will be extended to other departments of medicine. It certainly ought to be. Time is valuable, life is short, and we need our information packed into the smallest space possible. We, who are engaged in this packing process, are doing valuable missionary work.

PAMPHLETS AND REPRINTS.

Annual Report of the Asylum for Chronic Insane, Milwaukee County.

Fiftieth Annual Report of the Managers of the Utica State Hospital.

Seventh Biennial Report of the Trustees and Officers of the First Hospital, Saint Peter, Minn.

Fifth Biennial Report of the Northern Wisconsin Hospital for the Insane.

The Neuropathic Constitution, Education and Marriage, as Factors in the Causation and Propagation of Nervous Diseases.—Punton.

Modern Surgery in its Relation to Accident Insurance.—Oviatt.

Brain Surgery: Report of a case.—Schaefer.

Vertebral Surgery, with Reports of Three Cases, and a New Method of Operating in the Dorsal Region.—Schaefer.

The Sympathetic Nerve and Abdominal Brain in Gynecology.—Robinson.

Skin Grafting upon the Cranium.—Schaefer.

Report of a Case of Syringomyelia, with Exhibition of Sections of the Spinal Cord.—Lloyd.

Traumatic Myelitis.—J. T. Eskridge.

Report of a Case of Moral Imbecility, of the Opium Habit and of Feigning.—Eskridge.

Modern Homeopathy, its Absurdities and Inconsistencies. Browning.

A Case of Hæmorrhagic Iritis with Remarks.—Ch. Zimmermann.

Bloodless Amputation at the Hip Joint by a New Method.—N. Senn.

Syringomyelia.—Eskridge.

The Value of Voltaic Alternatives in Optic Nerve Atrophy.—Riggs.

Fifth Biennial Report of the State Board of Corrections and Charities of Minnesota.

First Biennial Report of the State Board of Control of Wisconsin Reformatary, Charitable and Penal Institutions.

NEW GERMAN LITERATURE.

WOLF, M. *Die physische und sittliche Entartung des modernen Weibes.* Leipzig. A. Schupp.

BEHRING. *Die Blutserumtherapie II. Das Tetanusheilserum und seine Anwendung auf tetanuskranken Menschen.* Leipzig. G. Thieme.

BUM AND SCHNIRER. *Diagnostisches Lexikon für praktische Aertze.* Wien and Leipzig. Urban und Schwarzenberg.

- GAD, J. *Real-Lexikon der medicinischen Propädeutik*. Wien and Leipzig. Urban und Schwarzenberg.
- ZIEMMSEN. *Annalen der städt. allgem. Krankenhäuser zu München, 1885-1889*. München. M. Rieger.
- KRAFFT-EBING. *Lehrbuch der gerichtlichen Psychopathologie*. Third Edition. Stuttgart. F. Enke.
- KAAN, H. *Der neurasthenische Angst-affect bei Zwangsvorstellungen*. Leipzig and Wien. F. Deuticke.
- GUGL AND STICHL. *Neuropathologische Studien*. Stuttgart. F. Enke.
- STRÜMPELL. *Lehrbuch der speciellen Pathologie u. Therapie*. Seventh Edition. Vol. II. Part I. Diseases of the Nervous System. Leipzig. F. C. W. Vogel.
- KNIES, M. *Die Beziehungen des Sehorgans und seiner Erkrankungen zu den übrigen Krankheiten des Körpers*. Wiesbaden. J. F. Bergmann.
- BECKER, R. *Sammlung gerichtsarztlicher Gutachten*. Berlin. S. Karger.
- ASCHER, B. *Zur staatlichen Beaufsichtigung der Irrenanstalten*. Berlin. S. Karger.
- BAUMGARTEN, E. *Die Neurosen u. Reflexneurosen d. Nasen-rachenraumes*. Samml. Klin. Vortr., No. 44. Leipzig. Breitkopf and Härtel.
- KÖLLICKER, Th. *Ueber die Fortschritte der Operativen Chirurgie des Rückenmarks u. der peripherischen Nerven*. Stuttgart. F. Enke.
- KRAEPELIN. *Ueber die Beeinflussung einfacher psychischer Vorgänge durch einige Arzneimittel*. Jena. G. Fischer.
- LOMBROSO AND LASCHE. *Der politische Verbrecher und die Revolutionen*. Translated by N. Kurella. Hamburg. Verlagsanstalt u. Druckerei A.-G.
- ZIEGLER. *Beiträge z. patholog. Anatomie, etc.* Bd. XII. Jena. G. Fischer.
- M BIUS. *Abriss d. Lehre v. d. Nervenkrankheiten*. Leipzig. Ambr. Abel (Arthur Meiner).
- Erste Sammlung der Schriften d. Gesellsch. f. Psycholog. Forschung*. Leipzig. Ambr. Abel (Arthur Meiner). Consist of five numbers, each of which can be had separately:

HEFT I. SCHRENCK-NOTZING. *Die Bedeutung narkotischer Mittel für den Hypnotismus, etc.* FOREL. *Ein Gutachten über e. Fall von spontanem Somnambulismus etc.*

HEFT II. MÜNSTERBERG. *Ueber Aufgaben und Methoden der Psychologie.*

HEFT III AND IV. MOLL. *Der Rapport in der Hypnose. Untersuchungen u. d. thierischen Magnetismus.*

HEFT V. KOEBER. *Jean Paul's Seelenlehre.* OFFNER. *Die Psychologie Charles Bonnet's.*

MISCELLANEOUS MEDICAL NOTES.

PIPERAZIN. — Reports from the German Journals are quite favorable to this method for gouty affections. In the *Berliner Klin. Woch.*, Doctors Biesenthal and Schmidt reported seven cases in which marked relief was obtained in several. In one case large quantities of gravel were passed the next day after using the remedy and immediate relief was experienced. The remedy should be given to the amount of 15 grs. a day, largely diluted.

AN interesting communication on the treatment of seasickness is made by Dr. George Macdonald, Glasgow. He states (*Brit. Med. Jour.*, 1892, Sept. 17) that it was his custom to prescribe in these cases a mixture of potassium bromide and spirit of chloroform; although this proved useful in many cases, yet it had the objection of being exceedingly liable to rejection by the stomach. The combination of chloralamid and bromide of potassium ("chlorobrom") was however never rejected in his experience, while at the same time it seldom failed to allay gastric disturbance and induce refreshing sleep, from which the patient awoke with a clear head, fair appetite, and free from all disagreeable symptoms. He considered that the perfect safety, agreeable taste and freedom from disturbing after-effects of the remedy all combined to render it an admirable preparation and an ideal sedative.

LYSOL.—Attention having been drawn by the recent cholera "scare" to the popularity of carbolic acid as a disinfectant, notice is being taken in medical circles of the even superior advantages for many purposes of the

cresols as disinfectants. It was discovered that crude carbolic acid made soluble by the action of sulphuric acid surpassed in germicidal power an equally strong solution of pure phenol, besides which creolin, although free from carbolic acid, was proved to be of unmistakably superior disinfecting activity to the latter. Being insoluble in water, however, these cresols were neglected until the idea was hit upon of combining them with resin soap. According to German testimony, lysol is one of the most precious products of coal tar which chemistry has given to the service of mankind.—*Scientific American*.

ANTISEPTICS AND DISINFECTANTS.—The prevention of disease is the unselfish mission of the modern physician. Antiseptics and disinfectants to-day occupy the first place in medical and surgical practice. Dilute solutions of acids have been strongly commended as preventive of cholera. The Liquid Acid Phosphate is an efficient agent in securing the desired condition of acidity. Copper Arsenite Tablet Triturates, $\frac{1}{100}$ and $\frac{1}{5000}$ grain, have been extensively and successfully used in dysentery and diarrhœal disorders and are indicated in cholera, both for specific action in controlling intestinal secretion and for relieving the profound anæmia. Eucalyptus and Thymol Antiseptic is adapted for use as an antiseptic internally, externally, hypodermically, as a douche, a spray, by atomization, and as a deodorant. Its application in surgery is unlimited. It is an excellent dressing for wounds. It combines the antiseptic virtues of benzoic acid, boric acid, oil of peppermint, oil eucalyptus, oil wintergreen, oil thyme and thymol. Tablets of Yellow Oxide of Mercury, containing two hundredths of a grain of the oxide, are a valuable prophylactic against dysentery and enteric fever. They prevent fermentation and putrefaction, and render aseptic the alimentary tract. Chloranodyne is a combination of anodynes, antispasmodics, and carminatives which has been widely employed in gastric and intestinal troubles. It acts very happily as an anodyne and as an astringent in cholera, dysentery, diarrhœa, and colic. Antiseptic Liquid arrests decomposition and destroys noxious gases that arise from organic matter in sewers and elsewhere, and may be used in cellars, barns, outhouses, and the sick-room. Antiseptic Tablets are convenient for the extemporaneous preparation of antiseptic solutions of definite strength of mercuric bichloride for disinfectant purposes and

for antiseptic sprays. Disinfectant Powder possesses in a high degree disinfectant, absorbent, and antiseptic properties. It is admirably adapted for the disinfection of excreta in cholera, yellow fever, and typhoid fever. Sulphur Bricks are effectual in the fumigation and disinfecting of rooms after infectious diseases. Ethereal Antiseptic Soap (Johnson's) was devised by an experienced nurse in the surgical clinic of the Jefferson Medical College. Its marvelous cleansing powers make it a valuable adjunct to the armamentarium of the physician and surgeon. Mercuric Chloride can be dissolved in it in ordinary proportions. Parke, Davis & Co. will be pleased to forward, on request, any information desired concerning these products.

THE REVIEW

OF

INSANITY AND NERVOUS DISEASE

A QUARTERLY COMPENDIUM OF THE CURRENT LITERATURE
OF NEUROLOGY AND PSYCHIATRY.

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THE REVIEW

OF

INSANITY AND NERVOUS DISEASE.

FOR SEPTEMBER, 1893.

EPILEPTIC INSANITY.

BY JAMES H. MCBRIDE, M. D.,

[SUPT. MILWAUKEE SANITARIUM FOR NERVOUS AND MENTAL DISEASE.]

The clinical features of Epileptic Insanity entitle it to be considered separately, though its manifestations are variable as regards the type of disorder. In some cases we observe the symptoms of acute mania, in others, occasional but pronounced depression, and in others dementia. The form of disorder doubtless depends upon the degree of dissolution of the psychical centers, melancholia being the milder degree, mania a greater degree of dissolution, and dementia a more serious dissolution still, showing as it does the wreckage that is left by repeated storms of convulsion.

In speaking of Epileptic Insanity, it is necessary to treat with some fullness epilepsy itself, for they cannot well be separated, the insanity being the reverse side of the epileptic picture.

At the outset we naturally ask, "What is the condition of the nerve centers that results in the epileptic fit?" The view which is generally accepted is that the fit is due to a sudden and violent discharge of nerve force, which discharge results in unconsciousness or convulsions or both. The function of the nerve cell is to store up and expend nerve force. In

Lecture delivered to the students of the Chicago Policlinic, May, '93.

health this discharge is only in response to stimulus, but in certain diseased states the cells become morbidly unstable and discharge, without a stimulus, violently and suddenly. Twenty years or more ago, it was the fashion to consider arterial cerebral spasm as the proximate cause of the epileptic fit, but this explained nothing, not even itself, and only exchanged one pathological puzzle for another. The theory, therefore, that epilepsy is primarily a discharge of unstable nerve cells is, for the present at least, the most reasonable explanation.

It has been said that this is a theory only and cannot be demonstrated, but it accounts for the phenomena and should be valued accordingly. We should not despise theories, for they are the scaffolding by the aid of which all science has been built and are necessary to progress. We are indebted to theories for much of our scientific knowledge in medicine and out of it, and though the theories often bear little resemblance to the facts to which they have led, they have at least held the lantern for man while he searched.

What is the cause of the molecular instability of cells that is exhibited in the phenomena of epilepsy? One view commonly held is that this instability is due to some perversion of nutrition through which the structure of the cells becomes faulty and therefore excessively unstable. In this view there is not necessarily a pathological condition demonstrable by the microscope, but some failure in the nutritive supply whereby the inhibitory power of the higher cortical centers is lost, and a morbid instability with involuntary discharge results.

Dr. Bevan Lewis claims to have found in epilepsy a certain pathological condition which, to his view, explains the phenomena of the disease. This consists in a degeneration of the nucleus of the cell which he claims is a constant factor in epilepsy. You know that the physiologists teach that the cell nucleus in some way presides over the nutrition of the cell and also acts as an inhibitory or controlling center of the cell. If the nucleus is diseased, the cell fails in the performance of

its function and degenerates. Dr. Lewis finds in epilepsy degeneration of the nucleus of the cortical nerve-cells and this so constantly that he considers that it explains the disease. If the nucleus is the inhibitory or controlling center of the cell, presiding over its vital changes and its functions, then when it is degenerated it is to be expected we would find perversion of function, shown especially in irregular, sudden and wasteful explosions of energy. Dr. Lewis claims also to have found nuclear degeneration in alcoholic insanity, a form of disease having many features in common with epileptic insanity, especially in its explosive nature.

With this exception there is nothing definitely known concerning the pathology of epilepsy. The pathological condition of the cornu ammonis found in epileptics by Meynert and others, has probably no significance whatever. The claim by others that there is a morbid over-growth of connective tissue in chronic epilepsy does not explain the pathology of the disease as the over-growth of neuroglia is probably a result and not a cause of the epilepsy.

The ruinous effects of the epileptic seizures upon the finer structure of the brain is apparent when we consider the delicacy and fineness of the ultimate anatomical elements, and that beside these there are myriads of undeveloped elements, waiting in their embryonic state, for the call of function to organize their relations, and discipline their powers to delicate and complex capacity. The violent and brutal discharge of the epileptic convulsion not only fills up the well worn channels of function, but spreads out as a devastating flood of energy over those yet unorganized and delicate nerve tracts, destroying one by one their fine relations and thus by exhaustion and repeated disruption of structure checks further development of the brain.

The arrest of growth and the degeneracy thus initiated are, if the fits continue, progressive and general. The disappearance of the nerve tissue proper involves, however, a pathological necessity, that of the production of some form of tissue

to take the place of that destroyed, and this is the origin of the sclerosis in this and other chronic cerebral diseases. Connective tissue, of which neuroglia is a special form, is a lowly organized tissue having simply the passive function to perform of holding together the higher structures. In lower animal forms we find relatively more neuroglia in the central nervous organs; and as we ascend in the animal series it diminishes in proportion as the nerve elements proper increase; that is nature gradually learns to dispense with this inferior tissue and replaces it with that of higher order. It is thus that she is able to pack in the small box of our skulls, the fifty precious ounces of structure with the wonderful results exhibited in cerebral function. When, however, the highly organized tissues, like nerve cells and fibers, disappear through disease, their complex structure renders their reproduction impossible; and so neuroglia having simple structure and low organization is produced to fill the place. Therefore, we find in the brain of the senile, in those of the chronic insane, and in epilepsy there is an overgrowth of neuroglia because in the absence of the higher tissues it is supplied at a low cost of vitality. The meaning, then, of the morbid growth of cerebral neuroglia in epilepsy is that it is secondary to cell degeneracy, nature uses it to fill up the vacant spaces that decay has made.

It will be interesting to consider a moment the mechanism of the cerebral discharge which is exhibited in epilepsy. If I pile a number of bricks on top of each other on this table, each brick will, when put in place, represent just the energy that I expended in lifting it, and when it falls it will give out just that amount of energy in the form of heat, molecular motion, atmospheric vibration. In lifting them I stored up energy, in their fall this energy was expended. Nerve cells are composed of molecules and atoms, the former being aggregations of the latter. The molecules are associated in twos and sixes, etc., according to the complexity of the functioning cell and their relations are subject to incessant change

to correspond with the processes of function. The invisible servants of vitality are ever at work within the nerve cells placing these tiny nerve molecules and atoms in complex relations and in unstable positions from the fall of which nerve energy is set free. That is, the vital processes, when they lift them into unstable positions, store up in them the energy expended in lifting them, and when upon an appropriate stimulus they fall back as my bricks did into simpler compounds, they give out that stored up energy.

This briefly and imperfectly is the mechanism of normal cell action and morbid action conforms to the same law. In epilepsy there is this same molecular disruption, a disintegration of cell structure with the result not as in health of orderly and purposeful discharge but of violent and disorderly discharge. The path of the discharge varies so that the phenomena of epilepsy may be either motor, sensory or psychical. Epilepsy then, is a morbid discharge from cells which, owing to some abnormal condition, are pathologically unstable.

The different forms of epilepsy may be named as follows:

Grand Mal, or the ordinary epileptic seizure.

Petite Mal, or *cerebral* or *mental epilepsy*.

Nocturnal epilepsy.

Jacksonian epilepsy.

Epilepsy occurs in connection with other diseases, as hemiplegia, syphilis or alcohol, but there is no special form of epileptic insanity resulting from these conditions.

Before proceeding to describe the various epilepsies and their resulting mental affections I wish to speak briefly of an important accompaniant of epilepsy, the so-called *aura epileptica*. This phenomenon is not present in every case of epilepsy, though it often is. The aura, as you know, is some sensation, or motion, or mental impression immediately preceeding a fit and announcing its coming. In some cases, there is a vague or strange sensory impression, as of some one's breath being blown in the face or a sudden sensation of some-

thing passing up the spine or leg to the brain, or it may be a twitching or cramping of a muscle or a trembling of some part. The aura may start from any part of the body, from the skin, organs of sense, or from the internal organs, especially those supplied by the vagus nerve. It may involve the special sense organs or it may be purely psychical. One patient always saw a cat before a fit, others see balls of fire, flashes or various colored specks; others hear bells ring, hear roaring or voices; others have hallucinations of senses of smell or taste, the latter, however, being very rare. In some cases there may be a habitual combination of aura affecting two or more senses. One patient said to Dr. Reynolds that just before a fit he always had a horrible smell of green thunder, a rather picturesque description of the involvement of three senses. In some patients there is the recurrence of some emotion or idea at the oncoming of a fit. In one the same idea always occurs, in another a feeling of fright or terror. Pelops, the master of Galen, was the first to use the term "Aura;" his attention being called to it by patients who referred to a sensation of vapour passing from some part to the head. Believing the arteries to contain air, he suggested that their sensation was correct, the vapour passing up the vessels, and he called it "spirituous vapor." Statistics show that a little more than fifty per cent. of epileptics have an aura.

Of the two kinds of epilepsy most commonly met with the *Grand Mal* and the *cerebral* or *mental* epilepsy are not always well demarkated, there being intermediate forms between the two extremes; in some cases the fits partake of the character of both; some cases begin as one form and pass into the other or exhibit both. I had one case under observation in which the first attacks were a temporary aphasia only lasting a few seconds; later, there was temporary aphasia with mental confusion but no unconsciousness. A year later there was development of *Grand Mal* with disappearance of the milder attacks.

It is unnecessary for me to mention the features of the

ordinary epileptic seizure as you are all familiar with it. The insanity that results from any of the varieties of epilepsy may be, as stated, of different form in different cases. The epileptic insane may be depressed and morose, subject to delusions, usually those of persecution and suspicion. Others are violently maniacal; others, without showing any of these types of disorder, become progressively weak-minded, victims of the hopeless epileptic dementia.

Epileptic dementia is that condition of mental weakness which results from epileptic seizures and especially when the disease is of long standing. It is not necessarily associated with any more active mental derangement, but may and often does begin soon after the epilepsy develops and progresses to mild or serious loss of mental power. This form of dementia while being in the main much like the terminal dementia of other insanities, presents in the appearance of the patient some distinguishing characteristics, though these, I confess, are not easy to convey in words. The bloated face and dull, sodden expression, associated with some hesitancy of speech and mild mental confusion usually suggests to the expert an epileptic origin.

In a very large proportion of chronic epileptics dementia in some degree is a concomitant. At first there is the slightest dulling of the mental faculties, such as faulty judgment, a difficulty in grasping what was formerly easy to understand, slight failure of memory for recent occurrences, some difficulty in fixing the attention. All these indicate a slight failure of the mental vigor and are the first steps in the long descent of mental deterioration that ends in hopeless obliteration of the mental faculties.

In the extreme degree of mental degradation that results from epilepsy there is but the slightest trace of mind left, the patients take on flesh, grow dull and listless and are sluggish in movement; they only comprehend the simplest ideas and even such with apparent effort. The destruction of the mind is as thorough as if the cortex had been cut away. There is

in some of these cases a tragic exhibition of the mild and timid manners of a child in their helplessness, with occasional explosions of furious and destructive violence. There are many cases of epilepsy in which these attacks of violence never occur, however. They are timid and hesitating in manner, slow of movement, speech and comprehension, good natured, easily pleased and childlike. It is one of the most forcible as it is one of the saddest exhibitions of the dissolution of the brain by disease.

The mania of epilepsy, from whatever form of fit, is of the most furious and violent kind. There is nothing in the round of mental disorders that equals in brutal and destructive fury the mania of epileptics. They are utterly abandoned to raving violence that nothing can check or turn aside for a moment. I had a man under my care some years ago whose father was an epileptic, whose sister had been insane, and who had himself been an epileptic from his fourteenth year. At the age of twenty-eight he had one of his usual fits and immediately became violent and was under my care during its continuance which was about three months. For six weeks he was continuously maniacal with the most terrifying hallucinations, screaming, crying for help, begging for mercy, attacking every one that came into his room, and could only be calmed by drugs for a short interval. This maniacal condition passed away rather suddenly and he afterwards recovered and returned home to his occupation. This particular attack seemed to produce no lasting bad effect upon his mental faculties and with the assistance of his wife he continued in the management of a business that brought him a fortune. The epileptic fits had, however, perceptibly weakened his mind previously. It is now thirteen years since the attack of mania and he has had no return of it though the fits continue. This illustrates the fact that is observed in many epileptics that there may be an out-break of maniacal violence but once in a life time and which may last from a few hours to several weeks and the patient may go on having the fits and

there not again in years or a long life be a recurrence of the insanity

Epileptic insanity may precede a fit, take the place of a fit, or it may immediately follow it, and there are other cases in which the insanity occurs in the intervals of fits neither immediately following nor preceding one. The one most important feature of epileptic insanity is the tendency to violent and homicidal acts. The epileptic is specially liable to vicious and criminal conduct, being irritable, suspicious and impulsive, and hence of all lunatics he is the most dangerous. Among the mental perversions preceding a fit may be irritability, moroseness and a desire to wander about alone refusing usual companionship or occupation. Those who are associated with an epileptic are often able to predict a fit from this condition. The epileptic will fly into a passion about some trivial matter, perhaps become furious and strike or violently attack some member of the family. Other cases are despondent and some times suicidal for a short time before the attack. Others have head-ache, are dull and listless. There are others who for a short time before a fit are elated and exalted, loquacious and egotistic and coarse in manner and conversation. After the recurrence of the convulsion there is a return to the usual mental state. The fit, therefore, is in some cases the end of a condition of mind that is actual insanity or on the border of it, the explosion of the convulsion seeming to clear the mind and restore it to its normal condition. In some cases a violent attack of transient mania seems to take the place of a fit or it may be said to be the fit expended in the psychical sphere. The character of the insanity is not modified by its time relation to the fit, that is by the fact that it occurs before or after a fit or in the interval.

Maudsley, in his work on "Responsibility in Mental Disease," mentions an epileptic who seeing a companion asleep in a field seized a stone and crushed his head killing him instantly. He then fell down in a stupor in which he

was found by persons passing. Being found an epileptic he was sent to an asylum and while there almost succeeded in killing an attendant. Echeverria mentions a patient of a particularly gentle and affectionate disposition who arose in the morning after having a fit in the night, walked into his brother's room and after pacing the floor excitedly, seized a razor and cut his own throat quite seriously. On another occasion while at breakfast with his sister, upon her asking him if he would have some coffee, he rushed upon her and attempted to injure her. His brother, coming to the sister's assistance, found the patient leaning on the back of a chair with a knife in his hand unconscious in an attack of *petite mal*. Such illustrations might be multiplied indefinitely.

There is a condition called *epileptic automatism* which is not infrequently associated with the disorder and which is of great interest. Some observers hold that this automatism is only observed as a sequel to a fit, others that it may replace a fit. Further observation is necessary to settle this point. In cases where epileptic automatism is shown it certainly most usually develops after a fit. In some cases there is a manifestation of it after a fit in the way of doing simple but incongruous or silly things. For instance one patient always attempted to undress, and if allowed to do so would attempt to put his clothing on again, but was apt to mistake his coat for his pants or his shirt for his coat. Other patients run about kissing those they meet even strangers or even articles of furniture. Others steal and hide things or pick pockets with great cunning. There is no subsequent recollection of any of these acts. Echeverria mentions a boy who took a horse and buggy he found in the street, and after driving for some time left it at a stable saying it was his. There was no subsequent recollection of his having done this. He mentions another epileptic who enlisted as a sailor in New York, and suddenly recovered consciousness in mid ocean while the vessel was sailing for London. There are many instances where epileptics in this state have stolen and concealed articles, have committed homicide, arson, etc.

A satisfactory explanation of this condition is perhaps not possible. It has been said that in this state the patients are unconscious, and in a sense this is probably true. It is consciousness perverted and acting on a lower plane, a plane too, on which normal consciousness cannot act. Consciousness is a variable quantity, there being many degrees of it in the normal state, from those processes that lie upon the borderland of sleep to those that play clear and vigorous in our most active mental operations. Morbid conditions degrade the order of normal mental processes and they do this by involving first the higher processes, that is those that are more complex, more delicate, more unstable, more easily disintegrated by disease. The result of this degradation of the highest structures is that the lower orders of association become active and the mental processes that are shown, are the exhibition of the brain working upon an inferior level, producing a consciousness of an inferior order. The lower levels or orders of mental action are those of instinctive acts, in which self control is weakened or destroyed. These acts may be purposeless or silly or they may be in the line of animal gratification, or criminal, as pilfering or homicide. These instinctive tendencies exist potentially in every mind and when disease weakens the higher faculties that hold these tendencies in check then they act without restraint.

Concerning epileptic automatism it is important to remember that during its continuance there may be apparently sane and conscious acts of an intelligent and complex nature performed; there may be apparently intelligent conduct extending over several hours or days involving conversation, business transactions, traveling long distances, crimes committed, etc., and all this done when the patient is in an abnormal mental condition and of which he will on recovery have no recollection whatever.

The mental condition of epileptics during the intervals of the fits is by no means constant. Some are normal or nearly so between the fits, others showing various degrees of

derangement. Some authors hold that it is in only a minority of cases that there is any mental failure in chronic epilepsy. This is not in harmony with my own experience, and the best recent authorities deny its correctness. My personal observation is that epilepsy almost always produces some mental impairment and in the majority of epileptics the impairment is decided. It is surprising how quickly the mind suffers from epilepsy in some cases. One young man who developed epilepsy from long over work came to me within three months after having had his first fit, and yet he could see himself that his mental vigor was distinctly impaired. There are some chronic epileptics who attend to business successfully, and who to an untechnical observer would appear perfectly well and yet who have suffered considerable mental impairment. It is probable that you are all acquainted with such cases. The members of one's family are not always competent judges of the mental condition of an epileptic, as the mental deterioration is often so slow that their associates fail to note it.

There are other epileptics, who, while not showing actual insanity, show some departure from the normal state; they are irritable and morose in the intervals of the fits, showing lack of normal sympathy and affection for relatives, lack of interest and ambition in occupation. Others, in whom the disease has made more progress, are subject to fits of passion or attacks of violence, or of delusions of suspicion and persecution.

Some epileptics may be quite orderly in their conduct and yet entertain delusions of persecution, making them dangerous to others; they may, however, and often do conceal their delusions, because they are suspicious and fear to confide in any one.

Epileptics are not infrequently morbidly self-conscious, having exaggerated ideas of their own importance and feeling themselves unappreciated and neglected. The epileptic, in this condition, is usually selfish and self-centered in all his plans; his interest is wholly in himself and his imaginary

troubles. Being irritable and suspicious, he is on the lookout for slights and neglects; he misinterprets remarks and acts of others into intentional insults and builds extravagant delusions of personal wrong and insult upon the most innocent and trivial acts of others. They will lie in regard to their treatment by others, make false accusations of ill treatment and exhibit self-inflicted bruises as evidence of the truth of their statements. Women will accuse husbands of immoral conduct and tell the most circumstantial and plausible stories of outrages attempted upon them. The lower grade of epileptics will show these characteristics with less artifice and less success at deceiving. The moral perversion of some of them is extreme, especially in regard to the sexual propensities, soliciting improper attention from men or other women in the most open and shameless manner.

In *mental* or *cerebral* epilepsy there is as the only outward indication of the fit, often a sense of vertigo and faintness with facial pallor; in others there is no vertigo, but pallor and twitching of facial muscles; in others temporary confusion and a momentary pause in work or conversation. The mental processes are temporarily arrested, the patient, if busy, stops for a moment and then takes up the conversation or work. In some cases there is a vacant stare for a moment with a lapse of consciousness.

A French jurist was subject to these attacks and would leave his seat in court, walk out of the court room, wander about for a few moments and return and continue his duties. Following these attacks there may be and often are periods of confusion or insanity lasting from a few minutes to days and during their continuance patients may wander away from home, steal and hide various articles, or under the influence of hallucinations commit homicide or arson. Some epileptics during this stage desire to kill some one or set fire to buildings. A patient of mine said one of his first morbid fancies was that he must burn the church building in which he officiated as pastor and he actually tried to do it twice but

failed. In the only attack I saw him have he became violent and remained so for half an hour. Naturally he was a gentle and mild mannered man.

Following these attacks there may be perfect lucidity and continuance of usual occupation or there may be confusion or mental derangement. The patient may wander away from home, commit thefts or other crimes such as I have already detailed. A man was under my care some time ago who had been from boyhood subject to cerebral epilepsy. He was considered harmless and lived at home. One day he suddenly became furious and killed both his parents with an ax. He refused to give any explanation of the crime, but there is no doubt that he did the act in an attack of epileptic fury. These seizures that last only a moment and may pass unnoticed for a long time may be followed by attacks of the most furious violence. Lewis mentions a man who, during the night, thought he saw two burglars attacking his wife and he ran for a hatchet. He remembered nothing after that but was subsequently found wandering in the street with a bloody hatchet in his hands with which he had killed his wife. It was believed he had a hallucination during an epileptic seizure and had killed his wife thinking he was attacking a burglar. These attacks are sometimes associated with unpleasant or even terrifying hallucinations that drive the victim to fury and violence. The patient sees some one striking at him with a knife, he hears some horrible accusation from an enemy and becoming desperate he rushes upon and attacks the first person he meets. In this state a man ran through the streets in New York some years ago stabbing every one he met, seriously injuring several persons. This form of epilepsy may precede the usual *Grand Mal* form or it may replace it or occur in the intervals of other fits. Some have *Grand Mal* at rare intervals and cerebral epilepsy more frequently. This latter form of epilepsy causes more rapid failure of the mental powers than any other kind of fit. Fitful brilliancy of mental powers has been associated with this

form of epilepsy. Swedenborg and Mahomet who were both subject to this, and the usual form of the attack are instances. The extravagance and visionary character of their belief is in harmony with the self-centered consciousness of the epileptic whereby he magnifies his personality and exaggerates all impressions, being especially subject to hallucinations of the senses.

Nocturnal Epilepsy may be either the grand mal or mental epilepsy. It is thus named, of course, from its occurring at night and it may exist for a long time unsuspected by patient or friends. Some years ago I was called to see a little boy of nine years who had for some time and on many occasions attacked his younger brother while they lay in bed at night. Repeated punishing having done no good and the boy showing some mental peculiarities, they requested me to examine him. I learned he sometimes complained of headache on the day following the scenes with his brother and was dull and indisposed to play and also alleged he had no recollection of hitting his brother. His mother stated that he passed his urine in bed quite frequently. Suspecting epilepsy, I had him watched and my suspicions were confirmed. Some months later he had attacks during the day of cerebral epilepsy and was invariably violent afterwards. He became an epileptic imbecile, his mental development being arrested by the fits, and is now, at nineteen years of age, in an asylum. His younger brother afterwards had epilepsy, though I do not know the form of the disease in his case.

The *Nocturnal Epileptic* fit may occur without waking the patient from sleep. Sometimes there is the initial cry and convulsions, at other times these are not observed and in some cases they are never observed. The patient, however, is almost certain to have morning headache, feeling dull and probably irritable. The face will be flushed or bloated with minute petechiæ on face and neck, and sometimes with sore tongue, the result of its having been bitten during the fit. The urine is not infrequently passed in bed at the time of the

fit. Stains of blood and saliva are also occasionally found and are important confirmatory evidence of a fit. *Nocturnal Epilepsy* is very injurious to the mental faculties, and especially in children it produces early arrest of mental development. All forms of epilepsy are much more injurious to children than adults. The delicate and imperfectly organized cerebral structure is rapidly impaired in function and arrested in growth by the violent and repeated shocks of the fit. Epileptic somnambulism occasionally follows the nocturnal seizure and in fact all the phenomena observed to follow the diurnal fit may be observed in these. Patients attack others sleeping with them or in an adjoining room, or get up and walk some distance performing apparently intelligent and conscious acts and return to bed without regaining normal consciousness. Trousseau suggested that all nocturnal accidents should suggest epilepsy. Morel, Echeverria and others have published many cases in which nocturnal epilepsy had led to crime.

There are some characteristics of the epileptic insane that I have thought would be more easily remembered if considered separately from the general description.

An important characteristic of the epileptic is his impulsiveness. There is more danger from the impulsiveness of the epileptic than from his intellectual derangement. Of all classes of the insane, they are the most impulsive. The fits weakening their control and leaving their nerve centers hyperæsthetic and irritable, they react quickly and without thought to all impressions. Their mental reflexes are exaggerated and their self-control weakened. They are then controlled by feeling and passion and their acts are sudden and instantaneous. Combine with this their characteristic suspiciousness and you have about as dangerous a person as can be imagined. This mental irritability is especially marked at about the time of a fit and the utmost tact is necessary in their management. This characteristic of epilepsy was impressed upon me in my early experience in an insane hospital when one day I placed my hand on an epileptic's shoulder, intending to speak to him;

he turned and struck me, however, in the face before I could speak. Instantly he regretted his act, saying he struck without thinking or even knowing there was any one to strike. At such a time, an abrupt remark or a touch or some one entering the room suddenly will cause an attack of violence. A case has been reported in which an epileptic shoe-maker attacked with a shoe knife and seriously injured his little daughter who suddenly entered the room where he was. He had no recollection of the attack. Epileptics having ideas of suspicion in the intervals of the fits are apt to have them exaggerated at or about the time of seizures and this, together with their irritability and impulsiveness, render them dangerous at such times.

The memory of epileptics is often impaired or confused. Very many have no recollection of a fit and though mental derangement may succeed a fit and last for hours and days during which the patient may do complex and apparently intelligent acts, yet there may be no subsequent recollection of it. This unconsciousness associated with epilepsy is important to have in mind because of its medico-legal relations. Again the memory of an epileptic of a criminal or other act may vary. In some cases there is for a short time a partial or confused memory of the occurrences of the abnormal state and then in a few hours this may be replaced by complete oblivion of the occurrence. The statement, therefore by an epileptic that he had no recollection of an occurrence and at another time that he had a confused recollection may both be true. This of course rarely occurs but there are said to be undisputed instances of it.

Much has been written in regard to the religious character of epilepsy and it is indeed a strange phenomenon. Many epileptics are obtrusively religious, saying their prayers where they are observed, declaring their moral superiority to others, carrying their bible in their hands and reading it where they are noticed; and these patients are apt to be the most trying cases of epilepsy, egotistic in the extreme, wholly absorbed

in self, deceitful, treacherous and quarrelsome, addicted to grossness in conduct and language. Dr. Gowers has published a case in which an epileptic girl had visions of being in heaven and seeing and talking with persons there. Such experiences remind us of those of Swedenborg and Mahomet both of whom were epileptics.

The medico-legal relations of epileptic insanity are important. How far should the existence of epilepsy render a person irresponsible? While some general principles may be laid down for the guidance of the physician, no rules applicable to all cases can be established. Each must be carefully studied and judged by its special indications. There are some epileptics in whom the mind is unimpaired and these of course could not be considered irresponsible except during a fit. There are others in whom there is a slight shade of mental failure, some blunting of the normal acuteness but with no delusions. Others again are, at or about the time of a fit, irritable, suspicious, and perhaps despondent and morose, showing noticable mental weakening yet in the intervals of the fits pass for normal persons. Others again have delusions and yet others have paroxysms of violence. Epileptics who commit crimes are usually chronic cases. While there are exceptions to this rule they are rare. We would expect this to be so, for the longer the epilepsy has existed, the greater the mental degeneration. Crimes are some times committed at the time of a fit but more often in the intervals of fits. The Roman law exempted all epileptics from responsibility for three days before and three days after a fit. All criminal acts committed by epileptics should lead to a careful investigation of their mental condition at the time of the act. Some people have fits infrequently and are apparently normal in the intervals. A crime committed during such interval would not necessarily be due to the epileptic condition. The nearer, therefore, the act is to an epileptic fit, the greater the chances that it was the result of the fit. The nature and manner of the

crime may help to determine the condition. A crime, if apparently motiveless, reckless and furious, is probably due to epileptic insanity if committed by an epileptic.

As we have seen in the case of the man who killed his wife, a crime may be committed under the influence of a hallucination. Some years ago, in New York city, a man by the name of McDonald choked to death his brother with whom he was sleeping. He would give no explanation of the crime. Some weeks afterwards while in prison he attempted to choke another person who slept in the same cell. The superintendent of the City Insane Asylum being asked to examine him recognized in him an old epileptic patient whom he had discharged from the asylum some months before.

Epilepsy is relatively common among criminal classes and also among those who drink. Crimes, when committed by them not otherwise explainable should be examined for evidences of epilepsy.

The important features of epileptic insanity may be summarised as follows:

1. The forms or varieties of epilepsy liable to lead to insanity are the ordinary, Grand Mal, Mental Epilepsy, Nocturnal Epilepsy.

2. Nocturnal epilepsy and mental or cerebral epilepsy produce more rapid mental deterioration than other varieties.

3. Epileptic insanity may precede, take the place of, or follow a fit.

4. It may be a quiet type of insanity or the most violent mania.

5. The mania may occur only once in the course of the life of an epileptic who has the disease from childhood.

6. Epileptic insanity is a most dangerous form of mental disorder as the subject of it is suspicious, irritable, and impulsive being conspicuously weakened in self-control.

7. There is usually loss of memory of events of the insane period though occasionally there may be a confused recollection.

8. That a condition of mental automatism may follow an epileptic fit which may last for days during which a person may transact business, buy a ticket and travel distances, converse intelligently, and yet afterwards have absolutely no recollection of anything that occurred during the period.

9. The epileptic attacks may occur during sleep and not during the waking state, and that this nocturnal epilepsy is apt to be associated with violence and ultimate mental weakness.

10. That insanity is more apt to be associated with the mild fits called cerebral or mental epilepsy than those in which the convulsions are violent. It must not, therefore, be thought that the condition is a trifling one and the danger of mental disorder slight because the fits are apparently mild and of short duration.

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ANATOMY AND PHYSIOLOGY.

ON THE PHYSIOLOGY OF THE AUDITORY NERVE AND ITS END-ORGANS.—In an article on this topic Grützner states, from a review of the literature of the subject, that the semi-circular canals, with their ampullæ, are organs for the perception of circular motion. J. R. Ewald (*Strassburg*) has lately found that animals in which the trunks of the auditory nerves were divided developed a peculiar weakness and clumsiness of muscular movement. They do not get dizzy upon being rapidly rotated, neither does nystagmus develop under such circumstances. Ewald has also found that pigeons from which he had removed the entire auditory apparatus, on both sides, could hear. This would indicate that the trunk of the acoustic nerve is, in these animals, directly sensitive, in contradistinction to the optic nerve. Ewald divides the end-organs of the auditory nerve into an auditory and a tonus labyrinth. He considers the otoliths to be organs for the recognition of equilibrium and progression and, secondarily, for the regulation of muscular tonus. The perception of our position to the horizon is, however, due to both the otoliths and the semi-circular canals. Fishes and frogs from which the labyrinth has been removed will float for a long time on their back or assume other unwonted attitudes. Kreidl has also found, lately, that deaf mutes suffer from vertigo and nystagmus upon rotation to a much less degree than normal persons. Their powers of balancing (e. g.: standing on one foot with eyes closed) was also less. (*Deutsch. Med. Wochensch.*, No. 6, 1893.)

THE RESPIRATORY CENTER IN THE MEDULLA. From experiments made by himself and Mareniscu, Gad has been led to the following conclusions: 1. The point of the calamus scriptorius may be designated, in accordance with Flouren's suggestion, as a "noeud vital," but this vital point must not be confounded with the bulbar respiratory center. The sudden cessation of respiration and death following injuries at this point are due partly to the excitation of inhibition-impulses and partly to the interruption of conduction between the bulbar respiratory center and the spinal motor respiratory centers. 2. The motor spinal respiratory centers are represented by segmentally arranged cells in the anterior gray columns; they have no especial sensibility to the hæmic irritation and are not coupled for synergistic action by appropriate connections. They can carry out slight coördinated spinal reflexes. 3. The descending paths which synchronize the activity of the bulbar and spinal centers run in the lateral columns and in the upper cervical cord are situated in the processus reticularis. They do not decussate. 4. The function of the bulbar respiratory center consists in the rhythmical liberation of coördinate respiratory motor impulses, which are originated by the hæmic irritation, and are regulated reflexly by the vagi. Between these impulses reflex expiratory movements are generated. The functional activity of the bulbar respiratory center is located in nerve cells, which are not grouped as a nucleus, but are arranged in a well defined system in the formatio reticularis lateralis, which is the bulbar continuation of the lateral columns. The bilateral symetry of the respiratory impulses is attained by intrabulbar commisural fibers between the centers. 5. The nerve cells of the inspiratory portion of the bulbar respiratory center retain their sensibility for the hæmic irritation only under the constant action of such centripetal irritations which have, besides their specific functions, the action of stimulating the metabolism and rhythm of the brain. The centripetal paths which act, in this general sense, as respiratory nerves, are contained in the vagus, trigeminus and the nerves of special sense. Only in this sense can the fifth nerve act vicariously for the vagus after double vagotomy and section behind the corpora quadrigemina. (*Deutsch. Med. Wochensch.*, No. 6, 1893.)

PATHOLOGY AND SYMPTOMATOLOGY.

HÆMORRHAGE INTO THE CENTRUM OVALE. — Bamberger reports four cases from Nothnagel's clinic, two of which were confirmed by autopsy. The symptoms are varying and not at all characteristic, and the trouble may even exist in a latent form. In fresh cases, besides the local symptoms, there are a number of indirect symptoms. In hæmorrhage into the central portion there is paralysis of the opposite limbs with local convulsions. Nothnagel does not, however, consider convulsion a symptom of purely central hæmorrhagic foci, but believes that in cases of some months standing, irritation of the cortex by the central lesion can be excluded. Most authors, however, are of the opinion that the convulsions are due to cortical irritation. The indirect symptoms may be utilized in making a diagnosis. The author's cases were alike in symptomatology. The first case was that of an old man, who was found comatose and convulsed. The face was injected, there was left hemiplegia, hypertrophy of the left ventricle and albuminuria. Attacks of Jacksonian epilepsy occurred frequently. Autopsy showed a clot as large as a filbert in the white matter under the right central convolution. The distinguishing symptom is the Jacksonian epilepsy, which is rarely caused by hæmorrhage, but oftener by tumor, syphilis or abscess. If it co-exists with apoplexy, a central hæmorrhage is probable, as cortical hæmorrhage is rare. It might be mistaken for a pachymeningitis hæmorrhagica. But it is to be remembered that the latter has pronounced etiological factors (alcoholism, tubercle, syphilis) and certain prodromes, that the coma is gradual in onset and there is choked disc, while an apoplectic attack is rare. Intrameningeal hæmorrhage is usually copious, and causes very extensive paralysis or rapid death. The diagnosis is of importance in regard to the prognosis as to restitution, but not as to life. Hæmorrhages into the capsule cause severer and more prolonged paralysis than those into the centrum, where the fibres spread. In one case the paralysis disappeared in a few days; in another it barely left traces. Although the accompanying convulsions present the appearance of a very grave disorder, the prognosis is more favorable than in other varieties of cerebral hæmorrhage. As these cases, by their severity, are very tempting to the surgeon, it is very important to remember that hæmorrhage into the centrum ovale may cause symptoms like those of cortical lesions, so that every possible means must be employed to establish an accurate diagnosis. (*Prag. Med. Wochensch.*, No. 25, 1893.)

PRECOCIOUS MUSCULAR ATROPHY IN HEMIPLEGIA AND PERMANENT SLOW PULSE.—P. Ginzetti (*Riv. Sperimentale*, XIX., I.), reports two cases of early appearing muscular atrophy in hemiplegics, which he discusses at length in the light of the existing literature, and concludes:

(1.) There are cases of precocious muscular atrophy in hemiplegics, depending upon alterations in the anterior gray horns of the paralyzed side.

(2.) In the cases I have collected the muscular atrophy was of a degenerative character and had an ascending distribution.

(3.) In these cases the existence of a cortical trophic influence could not be excluded, but this must have been exercised through the anterior gray cornua, and not directly on the muscles.

(4.) There are certain cases of late muscular atrophy in hemiplegics, dependent on lesions of the anterior horns, in which the alterations of the cells are so slight as to possibly elude observation, leaving ground for belief that the atrophy may be of cerebral origin.

As regards the permanent slow pulse, the following are his conclusions:

(1.) That permanent slow pulse depends upon a bulbar alteration.

(2.) That such alterations for the cardiac center must be limited to the tract of arrest, must be purely dynamic and probably primary.

H. M. BANNISTER.

HEMIPLEGIA AND THIRD NERVE AFFECTION.—Dr. Menz cites a case illustrating this affection. Patient was a child six years of age, but when ten months old had an illness characterized by restlessness. Extremities of the right side became weak, left eye tended downwards. Motor power improved in a few weeks, but child became subject to attacks of tonic spasm associated with unconsciousness. When patient came under observation right side of face was smaller than left; both eyes divergent; left pupil immobile; left in attempting to turn inwards could not pass beyond the middle line; upward and downward movement abolished in both eyes; fundi normal; right side of mouth paretic, tongue deviated to right; right upper and lower limbs small and their muscles badly developed; difficulty in carrying out movements; certain amount of contracture being present and reflexes increased on right side. Dr. Menz considers this condition probably to depend on lesion in the left crus cerebri crossing

the middle line and thus involving the fibres of the right third nerve as well as those of the left. (*Lancet*, August 19, 1893.)

B. M. CAPLES.

LESION OF THE THALAMUS AND INTERNAL CAPSULE.—Dr. Mills contributed the notes on a case in which there was a lesion of thalamus and internal capsule. The patient had an epileptic attack in 1887 and died in 1892. The symptomatology of the case summarized was hemianaesthesia. Paresis with contractures not marked. Inability to recognize position of the affected limbs. Hemianopsia and all affections of the special senses were absent as were athetoid and choreic movements. Autopsy showed a hæmorrhagic cyst which had destroyed about two-thirds of the substance of the thalamus including the entire external tubercle and a large portion of the pulvinar. The anterior extremity and internal and inferior surfaces of the thalamus were intact. The lesion had invaded, to a slight extent, the posterior arm of the capsule. (*Med. Rec.*, August 12, 1893.)

B. M. CAPLES.

TUMOR OF ANGULAR GYRUS.—Dr. C. L. Walton reports a case of tumor involving the angular gyrus and extending into the temporal, occipital and parietal regions. The symptoms were temporal and occipital headache, vomiting, paralysis of the left abducens from pressure, double optic neuritis, hemianopsia, word blindness, aphasia and word deafness. Operation was attempted by Dr. Richardson, of Boston. The tumor, however, proved too large and diffuse for removal. The patient lived two months with comparative relief of pressure symptoms, including abducens paralysis. Toward the end the right arm and head became somewhat paretic. The autopsy showed the growth to be a glioma. (*Med. Rec.*, August 12, 1893.)

B. M. CAPLES.

CEREBRAL SYPHILIS.—Dr. Ramson reports the case of a man aged thirty-seven. Had secondary syphilis a year previous; took mercury for a few months only; married three months ago; became drowsy and inattentive to business; shortly after marriage was attacked with headache, vomiting and rapidly progressing muscular weakness with marked mental deterioration; was often delirious. Was seen by author September, 1892, was greatly emaciated, pale, tremb-

ling, with hesitating indistinct speech, marked mental dullness, sometimes delirious, sometimes comatose; could neither read nor write nor name objects correctly until told; could only walk a few steps; no local paralysis or spasms; no anæsthesia or hyperæsthesia; double ankle clonus; sphincters normal; no optic neuritis. Patient was given large doses of iodide of potassium, and improved steadily. April, 1893, patient looks plump and healthy, can walk ten miles, do a little business and play a good game of draughts. He reads easily, occasionally sees double, handwriting a little jerky, slight tremor of the hands. For the last few weeks has had some headache, which till then had been absent. The author thinks in this case the etiology is clear, though the site and form of the cerebral lesion uncertain. (*Lancet*, July 1, 1893.)

B. M. CAPLES.

CENTRAL BIRTH PALSY.—Dr. Oliver wrote a paper on this subject and gave the reported case of a boy fourteen years of age, who shortly after birth developed convulsions, which continued more or less for the next three days. When standing or walking patient leans to the right side, left foot slightly drawn up. Left arm flexed at elbow and held forwards. Speech slow and drawling. Face pale and unequal, of the two sides, left half smaller than right. The left angle of his mouth is gaping, considerable flattening of left cheek. Right side of face active and full of expression compared to left.

The author thinks this history of the severe labor, followed shortly afterwards by convulsions of the infant, the weakness and maldevelopment of the right side of the face, left arm and leg, and the irregular athetoid movements exhibited can only be explained by conditions which came into existence during the process of birth. He also states that meningeal hæmorrhage occurring during parturition inflicts such an injury upon the brain that complete recovery becomes a matter of difficulty. He describes another case where meningeal hæmorrhage occurred during parturition, forceps being employed, and birth palsy has followed where no long continued pressing influences had been at work. Meningeal hæmorrhage occurring under these circumstances upon the vertex, either compresses the convolutions of the brain or tears the cerebral tissue, for the blood is poured out at the base of the medulla and cerebellum. (*British Med. Jour.*, April 8, 1893.)

B. M. CAPLES.

THE LOCALIZING VALUE OF APHASIA.—Dr. Preston read a paper before the Amer. Neurol. Ass'n upon this subject and called attention to the fact that aphasia has hardly commanded its proper place in the domain of cerebral localization. The centers for the speech processes and the visual and auditory centers were described. In connection with word blindness, two cases of hemianopsia were related, one with autopsy, in which there was no word blindness as might have been expected. A case of mixed aphasia was related and the brain exhibited. The case showed absolute motor aphasia, together with word blindness, and yet the lesion was confined to the third frontal convolution, the occipital cortex showing no disease. The general value of speech disturbance as an aid to localization, especially in disease or injury of the brain was discussed. A case was reported in which there was a general speech disturbance with distinct mental symptoms. Patient was at times maniacal. Upon the strength of the general disturbance of the speech processes the skull was trephined over Broca's region and the under surface of the dura found covered with blood. This case was mentioned to show how valuable speech disturbances may be, although very general in nature and not belonging to any recognized variety of aphasia. (*Med. Rec.*, August 12, 1893.)

B. M. CAPLES.

TABES AND SYPHILIS.—Dr. Sachs assumes that recent statistics have proved the close relationship between tabes and syphilis. This was established furthermore by: 1. The frequent occurrence of general paresis with tabes, and of tabes in course of general paresis. 2. The occurrence of symptoms in the course of tabes, which are often due to syphilis: the ocular palsies, loss of pupillary reflexes and even the lightning pains. 3. The effect of mercurial and iodide treatment upon many of the symptoms of the tabes.

The writer attempted a clinical differentiation of cases of tabes which are due to an active syphilitic process; among these he considers those which exhibit complete loss of reflex contractility of one or both pupils and ocular palsies. He reported a case of typical tabes in which, on post mortem examination, a more recent syphilitic process was superimposed upon an old typical sclerosis. He referred to the way in which syphilis might cause a spinal sclerosis. He gave reasons for thinking this was largely due to degeneration brought about by syphilitic disease of the blood vessels and spinal cord.

Dr. Mills looked upon the active lesions described by Dr. Sachs as probably causative of the sclerosis. Presented the

development of the sclerosis, there may be leptomeningitis and disease of the vessels which, if attacked early, might be relieved or removed; but the sclerosis once established, recovery is impossible. Posterior sclerosis often advances at intervals by jumps, and these may be sometimes coincident with or may follow the revival of active syphilitic process.

Dr. Seguin still adheres to the idea that syphilis is only a predisposing cause for the ground work of tabes. Certain cases occur that are undoubtedly free from any history or evidence of syphilis. (*Med. Rec.*, August 12, 1893.)

B. M. CAPLES.

SYPHILITIC SPINAL CORD DISEASE.—Dr. Frank R. Fry, of St. Louis, reports three interesting cases in the July number of the *Alienist and Neurologist*. It is considered that irregularity of symptoms is characteristic of specific disease. Some cases simulate tabes, others ataxic paraplegia, others transverse myelitis. In the first case author reports, sensation was normal in all portions of the body above the upper third of the thighs. Below that point tactile sense was slightly, if at all, impaired, patient being able to locate a touch on any portion of the lower extremities. In the same region, however, temperature and pain sense almost nil, and entirely so in legs and feet. From the lower third of thighs down patient was not aware when skin was transfixes with large needles. Two years later had incontinence of urine and partial paralysis of left leg apparently involving the extensors. Recent examination showed that the defect in pain and temperature sense had extended to a level with the fourth dorsal vertebra.

In the second case tactile sense was normal in all parts of the body, pain sense totally lost from lower third thighs down in both extremities, partial loss from that point up to the waist line; temperature sense impaired in same region as pain sense. There was symmetrical paresis of the lower extremities. She improved temporarily under specific treatment, but later relapsed with marked incoordination, various paraesthesiæ and difficulty in urination.

In the third case there was spastic gait, knee-jerks and plantar reflexes exaggerated, and slight ankle clonus. From the waist line down pain sense lost. Temperature sense lost in same region, but tactile sense normal. He had right hemiplegia three years previously, since then memory has become poor, some thickness of speech, defect in right ear. Under specific treatment there was slight improvement.

IMPORTANCE OF ARTERIO SCLEROSIS IN THE ETIOLOGY OF POSTERIOR SPINAL SCLEROSIS.—In an article in the *Med. News*, of July 8, 1893, George J. Preston says: In studying the pathologic anatomy of posterior spinal sclerosis, one is struck by the fact that the lesion is practically confined to the dorsal and lumbar regions. So far as the histology of the spinal cord is concerned, there is no reason why this should be so, for the fibre-tracts increase rather than diminish from below upwards, and we would expect to find a large area of sclerotic tissue in the cervical region than in the dorsal any lumbar regions.

In looking about for an explanation of this fact he finds it in the blood supply to the three regions. The cervical cord is supplied with blood chiefly from branches of the vertebral arteries. The vertebrales enter the spinal canal at the sixth cervical vertebra, give off lateral spinal branches, then send off two branches which unite to form the anterior spinal artery, and two smaller posterior spinal branches. These spinal arteries, anterior and posterior, run the whole length of the cord, forming plexuses which supply both the cord and the vertebræ, the anterior probably supplying the gray matter, the posterior probably the white matter.

Below the level of the sixth cervical vertebræ or in the dorsal and lumbar regions the supply is from a different source—the intercostal arteries. In the lower portions of the cord these arteries are probably the most important source of supply, as the spinal arteries, small at their origin, are much reduced in size at the lower portions of the cord. The intercostals give off spinal branches which enter more or less into the formation of plexuses. These branches probably enter the cord as peripheral branches supplying the fibres and not the gray matter.

The bearing of these anatomic facts becomes apparent when we observe the character of these intercostal arteries. The intercostal arteries leave the trunk of the aorta virtually at right angles, the type of vessel in which, according to Thoma, Welch and others, we find the beginning evidences of arterio-sclerosis. The mouths of these vessels become surrounded with a mass of calcareous material and the lumen of the vessel is more or less occluded. These vessels may be involved before there is any general manifestation of arterial change.

After this condition of sclerosis has involved the intercostals a diminished amount of blood would be sent to the cord, and as a result atrophy and degeneration of the nerve elements occurs. As a consequence of this degeneration of nerve matter there starts, partly from the sheath of the nerve,

partly from the blood-vessel, an outgrowth of connective tissue, which in turn encroaches upon the softer, less resistant nerve matter. It has been noticed that the vessels are generally thickened in tabes, Gowers especially calling attention to this fact, but not enough stress has been laid upon the outgrowth of connective tissue from the sheaths of the nerve fibres.

In considering the causation of tabes he refers to syphilis, cold and wet, which in most instances means rheumatism, and third, alcoholism. Syphilitic inflammation of the arteries in many particulars differs from the rheumatic and alcoholic forms, but so far as the destructive process goes, is just as important. Experience teaches us to expect little more improvement in syphilitic arteritis than in arteritis from other causes.

The writer does not claim that these anatomic facts will account for all cases of sclerosis of nerve tissue, but the idea will include the majority of cases.

With this idea of the pathology of spinal sclerosis the author has been treating three or four cases with nitroglycerine, the principle resting upon the dilatation of the small branches of the spinal arteries and a larger supply of blood being afforded the cord. Of course this can be done only to a small extent. The most marked improvement was the relief of pain. Two patients reported great improvement in walking. The dose of the drug in most cases was one one-hundredth of a grain, in tablet form, three times a day. The elements of mental suggestion was carefully guarded against.

T. H. HAY.

A CASE OF SYRINGOMYELIA.—Drs. Coleman and O'Carroll report a case lately coming under their care presenting an interesting group of nerve defects. Patient thirty-six years old, has not had syphilis, has lived soberly and comes of healthy family. As a child was clumsy in gait and up to January, 1880, enjoyed good health. During that month in running across a field foot caught in a hole, body became twisted and he "felt something give way." In November began to suffer from pain, and tenderness in the right lower costal area, still persists. In 1886 was obliged to give up work as a clerk owing to swelling and loss of feeling in right hand. In 1888 unable to write, hand became permanently swollen, could not hold pen or walking stick unless kept eyes upon it. Left hand gradually became affected. At present looks stout and ruddy, right hand is swollen with a sort of

solid œdema, purple and thin, skinned on the back. In attempts to extend fingers they often become clonically contracted. This can readily be evoked by passive extension. The clavicular portion of right trapezius completely atrophied. Left hand an ashy red, cold, not swollen, except for small patch of solid œdema on back. Skin appears normal in texture, power of left hand better than that of right, the face is not quite symmetrical, the naso-labial fold being better marked on left side than on right. Right leg spastic in movement, knee-jerk increased, ankle and rectus clonus present, limb somewhat ataxic in fine movements, knee-jerk slightly increased in left leg. Sensory abnormalities are the striking ones in the case. The authors here give a diagram showing the extent of these. There is a combination of motor, sensory and trophic lesions, as it seems to them, can best be accounted for on the supposition implied in the word syringomyelia. The disassociation of sensory defects is well illustrated. The patient, except for the difficulty which he has in putting on his clothes and feeding himself, is in good general health and complete mental activity. (*Lancet*, August 12, 1893.)

B. M. CAPLES.

ATAXIC PARAPLEGIA. — Dr. Stieglitz recently presented before N. Y. Neurological Society a man of forty years. First complaint weakness and paræsthesia in lower limbs; knee-jerks greatly increased, pronounced ankle clonus, slight ataxia, slight Romberg symptom, some paresis in right side of face.

All these symptoms steadily progressed; disturbance of functions of bladder occurred, thermal sense remaining. The case was considered as one of sclerosis of lateral and posterior tracts (ataxic paraplegia) with involvement of right facial nerve. (*N. Y. Med. Journal*, May.)

T. W. BISHOP.

POLIO MYELITIS ANTERIOR. — Goldscheider gives an historical and critical review of the various theories which have been offered in explanation of the pathology of this disease. The microscopical examination of the cord in recent cases has been only rarely possible. Goldscheider reports the result of the examination of the cord from a case of eleven days standing. The main changes were found in and around the vessels, which were enormously dilated and filled with corpuscles. In the perivascular spaces numerous groups of

round cells were found. The ganglion cells were pale, homogeneous in structure and rounded, without visible nucleus or processes. The processes, where present, were swollen and varicose. The ganglion cells stained little or not at all with carmine. The vascular changes involved not only the anterior gray horns, but also the antero-lateral and lateral columns, as well as, in a lesser degree, the pia. The author explains the extent of the vascular changes by reference to the blood supply of the cord, the involved area being that supplied by the arteries entering through the anterior median fissures. Similar perivascular changes have been found in a number of other cerebral and spinal diseases, as in Wernicke's polioencephalitis superior, in other forms of myelitis, and in certain cases of bulbar paralysis. He thinks the clinical picture may be produced by the *local distribution* and not the nature of the morbid process. He furthermore hazards the opinion that the primary etiological factor is an infection, although neither he or others were able to demonstrate the presence of micro-organisms by culture or otherwise. (*Deutsch. Med. Wochensh.*, No. 19. 1893.)

G. J. KAUMHEIMER.

PATHOLOGY OF TRAUMATIC EPILEPSY.—Dr. Ira Van Gieson prints an account of two cases of traumatic epilepsy on which operations were performed, with histological changes found. Only portion removed at operation investigated. First patient was a man twenty-four years of age who, in 1888, received injury producing fracture of right side of skull. Three years after injury attacks came on commencing with movement of left arm; occasionally had two fits a day. Bromides reduced their frequency but did not arrest them. Trephined by Dr. McBurney. No injury to internal table found, dura mater thickened, brain and cortex discolored and soft. After operation patient improved at first, but fits soon returned, becoming more frequent. Died six months after operation in convulsions. Examination of removed portion of brain revealed presence of rigid, apparently calcified piece of connective tissue, and doubtless this acted as a foreign body. Pia mater, in a condition of chronic inflammation, was moderately thickened by presence of an increased amount of connective tissue. In cortex itself no gross changes are described; marked degenerative changes in the ganglion cells amounting to almost complete dissolution.

Case two, boy of only four years of age had severe fall, sustained fracture of skull over left coronal suture, producing right hemiplegia. When twelve and one-half had a second

fall, soon after began to suffer from fits beginning in right hand, rarely affecting face, no loss of consciousness. Dr. McBurney operated, found the dura adherent to bone and also to the thickened pia mater. Latter contained cyst. This was emptied and walls removed, no fits during next three months, then a recurrence occurred, small collection of pus found under scalp. This was evacuated, followed by cessation of fits for three months. Again returned, affecting only right side. Bromides would not relieve. A second operation was performed, more extensive removal of bone revealed the fact that the dura mater here was also thickened and adherent to the altered pia mater. On puncturing a small amount of serous fluid was removed from a cyst lying half an inch beneath cortex. Another cyst was found further forward, both with their surrounding thickened tissue removed. Patient recovered, no recurrence of fits. Changes identical in character with those described in case one found in the ganglion cells as well as changes in the white matter of the convolutions. (*N. Y. Med. Rec.*)

B. M. CAPLES.

REFLEX EPILEPSY FROM INTRA-NASAL DISEASE.—This was the title of a paper read by Dr. Roe. He concluded: 1. That epilepsy is a frequent result of peripheral irritation, which may be excited by a local disturbance affecting the peripheral nerves in any portion of the body. 2. That the susceptibility to peripheral irritation varies greatly in different persons, as is shown by the fact that irritation of the same kind or degree will not always cause the same amount of central disturbance, or may develop reflex disturbance of an entirely different character. 3. That the nose is frequently the seat of sufficient irritation to excite a variety of reflex manifestations; that these disturbances may be confined to the brain centers, or they may be reflected to other peripheral organs, giving rise to the manifestations of an entirely different character. 4. That in the nose there are well defined sensitive areas, which are more readily stimulated by diseased conditions or by irritants introduced from without, than other portions of the nasal cavity. 5. That these areas are rendered inordinately sensitive to irritation by abnormal conditions in the nose, frequently independent of "neurotic habit." 6. That the undue susceptibility of these sensitive areas and the production of reflected disturbances—and especially those of epilepsy—is often more excited by intra-nasal pressure than by any other local condition. 7. That the frequency with which epilepsy has been found to result from intra-nasal

disease emphasizes the importance of interrogating the nose in all cases of epilepsy and especially those in which the cause is in any manner obscure.

EPILEPSY IN THE SOUDAN.—Dr. Rancon states (*"Jour. de Med. de Paris,"* May 21, 1893,) that epilepsy is very frequent among the Soudanese. Certain Soudanese people employ the same word to designate insanity as well as epilepsy. The epileptics are treated as lunatics and, except in self-defense, are not injured. Their crimes are condoned.

J. G. KIERNAN.

ASTHMA REPLACING EPILEPTIC FITS IN AN IDIOT.—Spasmodic asthma is included by Fagge with epilepsy in the group of paroxysmal neuroses, and Drs. L. Francis and F. R. P. Taylor record in the *Lancet*, June, a case in which, from no apparent reason, the pent-up nerve storm, instead of discharging itself along the customary channel of an epileptic seizure, expended its energy upon the bronchial muscular fibre, giving rise to asthmatic phenomena, and finally, after two days, exhausted itself by the accustomed epileptic seizure. Their case was as follows: Woman thirty-one years, an idiot, idiocy attributed to convulsions of teething, no neurotic family history, general health reported "good," no history of cough or respiratory trouble. After having retired, apparently in perfect health, was noticed by nurse to be "breathing badly," was later found to have all phenomena of typical asthmatic paroxysm, face pale, lips blue, look of extreme distress, skin cold, sweaty, pulse 120, breathing 35, labored, very restless. Examination showed inspiratory sound feeble, short; expiratory greatly prolonged, accompanied by sonorous and sibilant rhonchi. This condition persisted for fifty-seven hours, finally subsided after a moderately severe well marked epileptic fit.

T. W. BISHOP.

SEVERE CASE OF PUERPERAL ECLAMPSIA.—In *Lancet*, May, Dr. P. W. Young records the following case: Patient when he arrived had full, bounding pulse, temperature 101.3°, pupils widely dilated, anxious expression, intense frontal headache, dull pain in occiput, but had had no fit. Gave thirty grains bromide of potassium. Six hours afterward, convulsions set in and continued for eight hours at intervals of forty to fifty minutes, when she passed into a state of almost complete coma, lasting forty-eight hours. At this time, evidence of cerebral congestion appearing, leeches were

applied to the head. She soon moved her limbs, and recognized her nurses, but moaned and rambled in her speech.

Kept under influence of bromidia for the three following nights. Convalescence was gradual, urine showed albumen in large quantities. no trouble with milk.

T. W. BISHOP.

PROGRESSIVE MUSCULAR ATROPHY.—Dr. Hammond exhibited before the A. N. Society microscopical specimens and gave the pathological report of two cases of progressive muscular atrophy, and referred to the fact that considerable confusion is occasioned by the misapplication of the term "peroneal type" to a disease totally dissimilar to the one under consideration.

The first patient was a woman of forty-six years of age who, in 1889, stumbled over a chair, bruising the right shin slightly, and a few days after she was unable to walk as well as formerly. Soon afterwards there was a marked weakness of the flexors of the foot and extensors of toes. In 1890 there was complete paralysis of the entire right leg, with reaction of degeneration, loss of power and electrical contractility of anterior tibial muscles of left leg, atrophy and loss of power of the thenar and hypothenar muscles of the right hand. Gradually the other extremities became involved, and ultimately abdominal and intercostal muscles were affected. She died suddenly, either from cardiac or respiratory paralysis.

The sections of cord showed sclerosis of pyramidal tracts and atrophy of cells in the anterior horns and degeneration of Gowers' column throughout its entire extent. The conclusion to be drawn from the clinico-pathological study of this case would be that the muscles of the hand were supplied by the mesial group, the muscle of the forearm from the anterior group of cells in the anterior horn.

In the second case, seen in 1882, the disease only affected the muscles of the left thumb. He had the opportunity to watch the case to its termination in 1893. It ran the usual course and was every way typical. At the time of death all the muscles from the level of the arm-pits upward, except the facial muscles were atrophied as well as those of the upper extremities. She became maniacal and finally died from exhaustion. The cord and medulla were examined and the changes were identical with those described in preceding case. He concluded that these cases demonstrate that progressive muscular atrophy is due to a degeneration of the cells in the anterior gray masses and the antero-lateral white

columns. Also that it is superfluous to divide progressive muscular atrophy into different types, because the disease does not invariably begin in the same group of muscles. (*Med. Rec.*, August 12, 1893.)

B. M. CAPLES.

SCOLIOSIS IN PRIMITIVE ATROPHIC MYOPATHY. — Socoze reports (*Arch. de Neur.*, May, 1893), a case of very decided scoliosis in a 16 year old myopathic, in whose family myopathy had existed for three generations. The progressive muscular atrophy was allied to the Leyden-Möbius type. Socoze, while recognizing fully the influence of muscular atrophy in the production of the scoliosis, inclines to the opinion that there was also a predisposition resulting from osseo-trophic vertebral changes of allied nature to the muscular lesions.

J. G. KIERNAN.

PATHOLOGY OF PARALYSIS AGITANS. — Dr. Ketscher publishes a paper on the above subject. He divides the cases with reference to the pathological anatomy into two classes: those in which the examination furnishes negative results and those in which various changes have been found in the nervous system, such as hyperplasia of the connective tissue and neuroglia of the spinal cord, alterations in the nervous tissue itself and vascular changes. Similar changes have been described as appearing in the medulla and pons. Three cases of paralysis agitans have been investigated by the author. The nervous system, central and peripheral, was examined and in the three cases changes were found in both regions. The nervous structures showed atrophy, the ganglion cells were deeply pigmented and altered in form, the nerve fibers in the peripheral nerves and in the spinal cord degenerated and in some instances disappeared, muscular fibers also atrophied or degenerated. Neuroglia thickened, more especially around vessels and mostly in posterior and lateral columns, vessels also were altered, walls thickened, miliary aneurisms and small hæmorrhages present. Similar changes, but slighter in degree are found as senile changes in patients not the subjects of paralysis agitans. He concludes with Borgerini and others, that paralysis agitans is the expression of an extreme and premature senility of the nervous system and believes that the primary changes are in the vessels, those in the nervous system being secondary. (*Jour. Am. Med. Association*,)

B. M. CAPLES.

PARALYSIS AGITANS.—Dr. Dana, after giving a full report of his own cases and reviewing those published by others, expresses the view that the anatomical seat of the disease is in the spinal cord, medulla and pons, that is in the lowest segment of the central gray matter. The disease seems to be most marked in the blood vessels that supply the central parts of the cord and the anterior horns; next in the lateral columns, including both the pyramidal tracts and the fundamental columns and lateral limiting layers; sometimes degenerative neuritis of peripheral nerves and chronic myositis. The brain, if affected at all, is only slightly so and secondarily. This chronic irritative pressure is due to a toxin which circulates in the blood and may be of endogenous, perhaps glandular, origin. The disease process first affects the end-brushes surrounding the anterior horns and causes their degeneration, and finally impairs the anatomical structure of the motor and vasomotor secretory cells, causing degeneration and atrophy of them to some extent. (*N. Y. Med. Journal*, June 10.)

B. M. CAPLES.

DISEASES OF THE GANGLIATED NERVES.—Dr. Chas. K. Mills read a paper entitled as above, before the Pan-American Medical Congress. He referred to the erroneous views as to the gangliated nerves. He said even to the present day fanciful views regarding the so-called sympathetic nervous system are held by the profession at large, which was in part his reason for presenting this paper to the section. The name “sympathetic” has had much to do with perpetuating these errors. He argued that the ganglia of the gangliated nerves constitute lower local decentralizing levels of the nervous system. He gave the following as the diseases which may be regarded as genuine affections of the gangliated nerves:

1. Certain vaso-motor neuroses of the extremities, as erythromelalgia, *digiti mortui* (dead fingers), Raynaud's disease, or symmetrical gangrene, angio-neurotic œdema, and some forms of acro-paræsthesia.
2. Certain local vaso-motor and trophic affections, as perforating ulcer of the foot, Morvan's disease, in some instances, and various pigmentary and other skin affections.
3. Unilateral and localized sweating.
4. Some forms of pupillary dilatation.
5. Tachycardia and probably other varieties of disorder of heart rhythm.
6. Some varieties of changed arterial tension.
7. Anasarca, from deficient vaso-motor tonus and unassociated with organic disease of heart or kidneys.
8. Some varieties of arthropathy.
9. Some varieties of lymphopathy.
10. Some forms of isolated and diffused neuritis, as of the cervical gangliated

cord, of the great and lesser splanchnics, or of the pelvic splanchnics, or nervierrigentes. 11. Some painful sensory disorders not neuritic in character, but which give rise to mediastinal, pulmonary, abdominal and pelvic neuralgias. 12. Probably various reflex disorders.

MULTIPLE SENILE NEURITIS.—Oppenheim says that paralysis of peripheral origin in old age has received little attention. After referring to what has been written about progressive paralysis in old people, he says proof has hitherto been wanting to show what conditions corresponding to the well known picture of multiple neuritis occur in old age. The author has seen six cases of peripheral neuritis in the aged, two of which he records here. The disease presents such peculiarities in symptoms and course as to be deserving of a separate description. Thus, in five men and one woman, between 70 and 82 years of age, with arterio-sclerosis but no cachexia, motor and sensory symptoms slowly developed in the upper and lower extremities, but especially in the hands and feet. This atrophic paralysis lay in some definite nerve distribution, but was generally incomplete. The reaction of degeneration was present. Sensation was always impaired, but never completely lost. Tenderness of nerves and muscles was slight. The knee jerks were absent. There was no ataxy. The course was slow with a tendency to remit.

Thus the characteristics of the senile neuritis consists in (1) the absence of any of the generally recognized causes of neuritis; (2) its very chronic course; (3) the very slightly marked irritative symptoms; (4) the incomplete development of the motor and sensory loss; and (5) the escape of cranial nerves, the latter two characteristics being less important than the others. Such a case of multiple neuritis might occur in youth or a typical case of the disease in an old man, but this would be very exceptional.

It is extraordinary that there should be a tendency to improvement, that is, in these cases, when the disease is due to arterio-sclerosis. (*Brit. Med. Jour.*; Aug. 12, 1893.)

B. M. CAPLES.

PERIPHERAL BIRTH PALSY.—Dr. Gray says the simplest form of the above is that which effects the seventh cranial nerve. It is generally the results of forceps operation, but it is sometimes present after a protracted labor. The general tendency of such cases is to get rapidly well in the course of a few weeks or months, but he mentions the case of a young

woman in which the paralysis had persisted. The patient was born after a difficult and protracted labor in which the high forceps operation had been performed. The cranial bones were overriding one another and the facial paralysis, at first complete, rapidly improved so that little or no evidence remained of it at the end of two months. Ross considers the prognosis unfavorable, but Gowers asserts that most cases recover slowly. The author thinks that complete recovery is rare, but that no improvement at all is equally rare. As to treatment, electricity is the only method as yet suggested. This, to be successful, must be commenced at an early state of the disease and carried out in a systematic manner. There are two different indications in carrying out the treatment; (1), to play upon the affected nerve roots, and (2), to preserve as far as possible the nutrition of the muscles. (*Brit. Med. Jour.* April 8, 1893.)

B. M. CAPLES.

A CASE OF TRIGEMINUS ANÆSTHESIA is the title of an illustrated article in "*Nordiskt Medicinskt Arkiv*," by Thorbjorn Hwass. Axel O., thirty-one years old, of good family history, strong and well nourished; was in good health until 1878, when he fell from a one-story balustrade, striking on the top of his head, rendering him unconscious several hours, and confining him to his bed for several days. One month later he was struck on the top of the head with a club, again becoming unconscious. In 1879, contracted a suspicious sore on penis, which required four or five weeks to heal but without concomitant or succeeding constitutional symptoms. Married in 1885; no children; one miscarriage at seventh month, six years later.

First noticed an anæsthetic spot over right infraorbital foramen in 1887, which increased slowly in size until the entire right half of face and eye were involved; could not masticate food on that side and often bit himself. No anomaly of tear or salivary secretions. Four years later (1891) came into author's hands, who found total anaesthesia of entire area supplied by the right trigeminus. The right eyeball was completely anæsthetic but normal in appearance. The posterior right half of tongue was completely anaesthetic, the tip and underhalf partially so. The right nasal cavity also completely anaesthetic. The accompanying plates illustrate the degrees of sensation of the different areas to heat and cold, localization, electrocutaneous sensibility, pain and pressure. The skin, hair, mucous membranes in nose and mouth, tear, sebaceous, sweat and salivary secretions of right side just the

same as on the left. Conjunctiva and cornea normal, with sight, pupillary reaction, smell and hearing in perfect order. Electrical reactions of facial muscles normal, no atrophy. It is noteworthy that although the winking-reflex is absent, there is not the slightest sign of ophthalmia neuro-paralytica.

The author localizes the lesion somewhere between the origin of the fifth, and the ganglion of Gasser, from the symptoms and non-involvement of the motor and trophic fibres.

The cause is shrouded in doubt, but syphilis seems the most probable.

HALDOR SNEVE.

TOTAL OCULO-MOTOR PARALYSIS OF TRAUMATIC ORIGIN.—P. V., aged twenty-one years, shot himself in the mouth, with suicidal intent. He was unconscious for a day. When he regained consciousness, he found that he could not raise the right upper lid; when it was raised, objects seemed undefined and cloudy. A red ball seemed to be before the left eye. On the third day he was able to walk out. Two weeks after the injury, the right leg became paralyzed and painful. The pain passed off in three weeks, and vision became acute at the end of seven weeks; walking was possible in the ninth week. The ball (of about 32 caliber) was not extracted. Four months after the injury the ptosis of the right eye was complete. On lifting the lid the pupil was found not to react to accommodation, convergence or light. The eye moved only a little downward and outward. The abducens and trochlear nerves seemed normal. The left visual field was decidedly contracted and diplopia existed. All other cranial nerves were intact. A peripheral or orbital location of the lesion may be excluded *a priori*. It might be either basal or cerebral, and again, according to Mauthner's division of the latter, cortical, nuclear or fascicular. A cortical oculo-motor paralysis has never yet been observed and indeed no cortical oculo-motor center has been found up to this time. A nuclear lesion is improbable, as an injury to the oculo-motor nucleus would infallibly involve the trochlear nucleus, and both trochlear nerves are normal. For a similar reason, an injury of the intracerebral portion of the nerve is improbable. The injury is therefore basal. The paralysis of the leg of the same side, two weeks after injury, is probably due to the extension of a blood clot. (Dr. D. Goldschmid, *Wien Med. Wochenschr.*, No. 7, 1893).

G. J. KAUMHEIMER.

DOUBLE ATHETOSIS—Dr. Moussires (*Jour. de Med. de Bordeaux*, April 30, 1893) reports the case of an 11-year-old boy of a non-neurotic ancestry, whose mother had been subjected to mental shocks while pregnant with him. The child was born at term after normal labor. When 18 months old he had periods of unconsciousness about thrice daily. There was no convulsion. These disappeared at the age of 9. He learned to speak with difficulty, and at 8 years had still some speech trouble. The athetosis began early. The athetoid movements were not excessive. They were between simple athetoid movements and decided athetosis. The hand had athetoid deformities. The spasms occurred in spontaneous and provoked movements both. They led to extreme maladroitness, a state of quasi impotence of the limbs. They produced grimaces and gave rise to very bizarre facial expression. Elocution was defective. Words were uttered painfully as if dragged out of the mouth. There was neither aphasia nor stammer. It was evident that spasm of the muscles of phonation was the cause of the speech trouble. Muscular contracture was especially marked in the muscles which flex the leg on the thigh and the thigh on the pelvis.

J. G. KIERNAN.

THE ARTERIAL BRUIT IN EXOPHTHALMIC GOITRE. — Paul Guttman calls attention to an arterial bruit which may be heard over the tumor in exophthalmic goitre, but in genuine goitre. In the former there is an irregular ectasia of the thyroid arteries, which is not present in the latter. The murmur is synchronous with the pulse and is of great differential value in those abortive cases of Graves' disease in which there is no protrusion of the eyes, but only a goitre and palpitation. The dilatation of the thyroid arteries is not the sole factor in the production of the murmur, the cardiac hypertrophy usually present assisting in its production. This sign is of much more positive value than Graefe's sign (motor insufficiency of the eyelids) as the latter is not invariably present. The bruit is heard even if the valvular sounds are clear. In severe cases the bruit may be felt and seen. Besides this arterial bruit, a venous hum may be heard over the jugulars, but this has no diagnostic value, as it is caused by the accompanying anaemia. (*Deutsche Med. Wochenschr*, No. 11, 1893.)

G. J. KAUMHEIMER.

THERAPEUTICS.

TO WHAT EXTENT CAN EPILEPSY BE PREVENTED BY EARLY RECOGNITION AND TREATMENT.—The early recognition of epilepsy or of epileptiform seizures, especially during infancy, says Dr. G. M. Hammond (*Med. Rec.*, May) is of very greatest importance, because no matter how slight the attacks may be, the nervous system is always appreciably injured by them, and if the disease is persistent, the physical and mental development are often retarded to such an extent as to seriously impair them both in adult life. The effect upon the infantile mind of both forms of epilepsy is disastrous; of the two, petit mal probably exerts a more pernicious influence than grand mal, possibly on account of greater frequency of the attacks. Up to the 7th or 8th year, the brain of the normal child grows in size, increases in depth of its cortical substance and develops in vigor of its elements and cell life more rapidly than it does in later years. Repeated epileptiform seizures of all kinds retard this growth and development of mental activity, mental faculties become perverted, the child becomes dull of comprehension, has unnecessary attacks of rage, viciousness or uncleanly habits. The early recognition of idiopathic epilepsy is of paramount importance because of the tendency to become organic. Dr. Hammond believes that idiopathic epilepsy is at first functional and can in a majority of cases be readily cured if recognized soon after it begins and treatment is persistently carried out. Every time a fit occurs the delicate brain cells are irritated to a profound degree. Repeated attacks lead to structural changes in cells themselves, epilepsy is then organic. An epileptiform seizure, no matter how slight it may be, should always be regarded as a serious matter, not particularly on account of any immediate injury but because it usually indicates the existence of a powerful neuropathic predisposition, and a probability that the child will have subsequent epileptic seizures unless means are adopted to prevent them. Convulsion from teething, from worms in intestinal canal, from indigestion, are too often regarded as matters of little importance. The practitioner should recognize that in many such cases a neuropathic predisposition undoubtedly exists and assure parents that the attacks are of no little consequence and may show themselves in later life unless early eradicated by proper treatment. Dr. Hammond strongly emphasizes the necessity of close attention to physical culture and to diet in these cases. Both theoretically and practically the ideal food for infantile epilepsy must be one containing small quantities of proteids, fats and carbohydrates; meats, albuminous and gelatinous foods being nitro-

genous should be eliminated as gastric juice is diminished in quantity and altered in quality. The best medical treatment consists in use of bromides, except in a few cases cited, in which strychnia and phosphorus were most serviceable. From 5 to 15 grains t. i. d., according to age will usually control paroxysms without affecting progress of physical and mental growth. If infant has had only 2 or 3 attacks, treatment should be continued until a year and a half or two years have passed without evidence of epileptic seizures; when attacks have been of frequent occurrence and show persistence, treatment should be continued until all the signs of the disease have been absent for at least four years, and for next two years bromide treatment is recommended for periods of 5 or 6 weeks with suspension for 2 or 3 months.

T. W. BISHOP.

THE EFFECT OF LARGE DOSES OF BROMIDES IN EPILEPSY.—Fere reports fully twenty cases of epilepsy in which from 16 to 21 grammes of bromide of potassium or strontium were taken daily with the following results: Only one lost weight very considerably, in nine other cases there was loss of weight, but of little importance, four remained stationary, six increased in weight during treatment, eleven showed permanent and seven temporary improvement. In only two cases no benefit was noticeable. Doses of from 15 to 20 grammes of the bromides are harmless when watched and produce improvement in cases which have resisted smaller doses. Bromide of strontium may be given in place of potassium bromide with success. Attention during the course of bromide treatment consists in frequent examination of the patient to ascertain condition of skin. Take the weight, in order to be informed in regard to nutrition. When cutaneous lesions or a permanent diminution in weight exists it is necessary to look after the digestive organs with the greatest care, especially when the patient is in the condition of physical or mental depression and when the temperature is very low. In these conditions the accidents of bromism would necessarily be serious. The use of the drug must be immediately stopped and elimination by the intestine hastened by the aid of purgatives and by the skin with the aid of subcutaneous injections of pilocarpin. (*British Medical Journal*, August 5.)

B. M. CAPLES.

TREATMENT OF CERTAIN CASES OF CHOREA BY HYPNOTICS.—The following is abstracted from one of Dr. A. G. Barr's lectures: The vast majority of cases of chorea can safely be cured

by the combined use of rest in bed, feeding and the administration of some drug, especially arsenic, in efficient doses. Refractory cases unsuitable for above treatment are divided into three classes: (1) cases in which the disease, though never assuming a violent or dangerous form, persists for weeks, months and even years in spite of treatment, (2) cases of such a grave character as to immediately threaten life by the violence of the nervo-muscular disturbances alone; (3) cases which terminate fatally. The simultaneous or separate presence of—(1) great violence of movements; (2) rapid wasting; (3) bed sores; (4) insomnia; (5) high temperature; (6) the rheumatic state, would, it is believed, indicate a degree of severity which may readily threaten life and call for immediate and vigorous treatment. Especial importance placed upon the wasting, formation of bed sores and insomnia, the last being the index for purposes of treatment. The chief hypnotics are all mentioned and chloral hydrate is given in sufficiently large doses; in small doses it is believed to be not only useless, but absolutely dangerous in violent cases. He quotes Prof. Gairdner on his experience with chloral as follows: “(1) it sometimes succeeds in chorea absolutely where other remedies fail; (2) it can be depended upon, as a rule, in very severe cases to initiate a treatment which may be afterwards successfully carried out otherwise; (3) in such cases it has an almost absolute power of suspending or controlling spasm during the persistence of its deep hypnotic action and is therefore invaluable as a palliative (care being taken of course to avoid poisoning, acute or chronic;) (4) this or other limitations will interfere with the curative action, in some inveterate cases. The conclusion is that chloral hydrate is no remedy for chorea, but that sleep is the remedy and it is only as a safe and efficient sleep producer that chloral hydrate exerts any beneficial effect upon the disease. (*Lancet*, May 20.)

T. W. BISHOP.

SODIUM PHOSPHATE FOR TRIGEMINAL NEURALGIA.—In a rebellious case of trigeminal neuralgia in which all the usual therapeutic resources had been exhausted without affording relief Glovieux practiced subcutaneous injections of sodium phosphate with admirable results. Patient who had suffered for two years was completely relieved. Ten other cases treated similarly with success in seven. A solution of 30 grains of sodium phosphate in 3 ounces of distilled cherry-laurel water was prepared and from this 15 to 45 minims were injected daily. (*Medical News*, July 15th.)

B. M. CAPLES.

TREATMENT OF SCIATICA.—Dr. Lawrence gives an account of his experience in the treatment of sciatica. A carpenter 52 years of age had suffered from sciatica for seven weeks. Was emaciated, pale and had been taking morphine to relieve his pain. Great tenderness along the whole course of nerve; patient unable to use leg, was in constant pain. Various methods tried but ineffectual. Nitro-glycerine was given in an alcoholic solution of 1 % strength, commencing with a dose of 1 minim three times a day gradually increased to 5 minims. Improvement was almost immediate and in ten days patient was able to walk to his work and complete recovery followed. (*American Practitioner and News.*)

B. M. CAPLES.

LARGE DOSES IODIDE OF POTASSIUM IN CHRONIC TABES.—Stark reports the case of a woman 43 years of age who had syphilis thirteen years previously and who had been the subject of locomotor ataxy, could no longer walk, was pale and emaciated, legs presented locomotor ataxy, analgesia and in places anæsthesia of the skin covering them, and weakness and atrophy of muscles. Knee jerk absent. Patient had been previously treated with iodide, but only in small doses. Author gave a tablespoonful of a 50 to 400 watery solution three times a day to begin with. Later strength of the solution was increased to 60 to 400, and after three months 75 to 400. Three months later 100 to 400. Four tablespoonfuls of the strongest solution were given every day for four months. Improvement commenced after the first increase in strength of the solution and by the time the patient was taking the maximum dose anæsthesia and ataxy had disappeared, the muscular atrophy had improved and patient could walk with support without difficulty. The iodide was discontinued for weeks at intervals from time to time and during the last or third year it has only been given occasionally. (*British Medical Journal*, August 12.)

B. M. CAPLES.

ALTERNATING CURRENTS OF HIGH TENSION PRODUCED BY ELECTROSTATIC MACHINES.—Dr. S. Leduc (*Gaz. Med. de Nantes*) reports that by attaching a Leyden jar by its internal armature to each of the poles of a Wimshurst static electric machine, and uniting the external armature by a conductor of great resistance, he is able to obtain alternating currents analogous but not identical with those of Tesla and possessing properties that are somewhat noteworthy in a medical as well as in a physical point of view. In the Tesla currents the

tension is obtained by the rapidity of the alternations and these therefore vary directly with the tension. In the static machine current of Dr. Leduc, as the bulbs of the exciters are removed from each other, the tension increases while the number of alternation decreases, the two therefore vary in an inverse ratio. The conductors traversed by these currents become luminous in a very striking manner, quite different in intensity and character from the luminous phenomena of ordinary static electricity. The physiological effects of these currents are, however, those of most interest to the medical men. These alternating high tension currents excite both the sensory and motor nerves. Only one electrode is required, a smooth metallic point with an insulating glass handle. This, when carried over the skin and passing over a nerve, excites the whole distribution of that nerve below the point of contact. The sensation, when a sensory nerve is affected, is so well defined that the whole distribution of that nerve can be marked out on the skin, and the least displacement causes it to cease. These currents, therefore, will be a valuable method of localizing nervous excitations for physiological or therapeutic purposes. On account of their high potential, the inductive power of these currents is very great, and it is not even needful to attach the electrode to the machine to produce the effects. It can be attached to a gas or water pipe near at hand and the effects produced. Electrodes, indeed, are not necessary, if two subjects are isolated on glass-legged stools near the apparatus, the finger tip of one will act as a sufficient electrode without any conductors whatever being employed. A Tesla's tube, held by two persons, becomes luminous in the dark if one of them approaches his hand to the conductor. In connection with M. Rouxeau, Professor of Physiology at Nantes, experiments were made on frogs by the author, and he states that it was possible to produce muscular contractions in the galvanascopic legs by merely standing between them and the machine and pointing the index finger at a distance of as much as 1 metre away.

H. M. BANNISTER.

TRIONAL.—Koppers describes his observations on the effects of trional in several cases. He confirms the well known narcotic effects, placing trional above sulphonal, amylènehydrate, chloralamid, bromides and chloral, though he found that where severe pain is present it does not possess the virtues of morphine. The author thinks it valuable in diminishing night-sweats, four to eight grains being sufficient (a property not heretofore discovered). The author prefers

it to sulphonal, but observed in one of his patients suffering from heart disease a diminution of blood pressure was caused. No other unpleasant symptoms was observed, sleep being always induced very rapidly, generally in about half an hour. (*British Medical Journal*, August 5.)

B. M. CAPLES.

INDICATIONS FOR THE ADMINISTRATION OF CHLORALAMID.—As a result of a study of more than one hundred cases in which chloralamid was administered, Egbert reports as follows: In preparing patients for operation, refreshing sleep is of great importance. With a view to obtaining calm, refreshing sleep prior to operation (and especially operation upon the eye when no anæsthetic is employed) and otherwise preparing the mind of the patient for the ordeal, we have lately administered full doses of chloralamid at bedtime for two or three nights before operation. The results have been uniformly gratifying—immunity from surgical shock has been secured. In the insomnia sometimes following operation, chloralamid is strongly indicated when the condition is not dependent upon physical pain. Restless and insomnia of typhoid fever are indications for the exhibition of chloralamid. Chorea is an indication for chloralamid, not only when muscular movements interfere with sleep, but systematically as curative of the disease. In insomnia with unpleasant dreams following alcoholic, tobacco, or sexual excesses, chloralamid has a special field of usefulness. Give in full doses at bedtime. In mania and melancholia chloralamid is superior to chloral and the bromides.

T. H. HAY.

AGATHIN.—Reports on the unpleasant effects of this new compound continue to multiply. Dr. L. Badt reports that he administered 0.5 gm. twice daily to a woman suffering with sciatica. On the second day, headache and vertigo set in. After taking the evening dose on the third day, she vomited and became unconscious. As this had not happened under a different therapy, he attributes it to the remedy. It had no curative effect in this case nor in a case of chronic muscular rheumatism. (*Deutsch. Med. Wochenschr.*, No. 15, 1893.) Its excessive price would also prevent its general use, it being quoted at \$3.60 per ounce at wholesale.

G. J. KAUMHEIMER.

TOLYSAL.—Dr. Arthur Hennig has a very enthusiastic article on this new chemical combination in *Deutsch. Med. Wochenschrift*, No. 8, 1893. It is the salicylic acid salt of

p-tolyldimethylpyrazolon, which latter compound has been introduced to commerce by Riedel as tolypyrin. Tolysal is said to be remarkably efficient as anti-rheumatic, anti-pyretic and anodyne, combining the virtues of all previously known synthetic products with none of their drawbacks, in doses of 1 to 2 gms., which may be repeated every few hours.

G. J. KAUMHEIMER.

HYHNAL (HOECHST.)—Filehne publishes a short note on this combination of chloral hydrate and antipyrine. The combination contains one molecule of each of its constituents, 45 per cent. of chloral and 55 per cent. of antipyrine. Its action is much greater and at the same time milder than an equivalent of chloral. The action on the circulation is proportionate to the amount of chloral contained in the dose administered. The dose for an adult is from 1 to 2 gms., although 3 gms. may be given. Its taste is so slight that a corrigent is hardly needed. Its action begins in from ten to thirty minutes. In 124 doses, it was without effect twenty-seven times; the action was slight twenty times. In milder cases of excitation, commencing delirium tremens, chorea minor and insomnia it seems to act well, while the graver states of excitement yield more readily to chloral and hyoscine. Filehne calls attention to the necessity of specifying the "Hoechst" brand, as others examined proved without value. (*Berlin. Klin. Wochenschr.* No. 5, 1893.)

G. J. KAUMHEIMER.

TOLYPYRIN.—Paul Guttman reports on trials made with this new synthetic compound, a congener of antipyrine. Like the latter it has anti-pyretic, anti-rheumatic and anti-neuralgic properties, and Guttman estimates that it is at least equal to it in action, while the price is less. The daily dose may be stated at from 4 to 6 gms. in doses of 1 gm. each. In the discussion Liebreich called attention to the fact, that as in other similar salts such as salipyrin and tolalsal, the antipyrine molecule is the active ingredient and that these modifications are not due to the initiation of physicians, but to the endeavors of manufacturers to utilize the antipyrine molecule. He protested against this as useless and a waste of the pharmacologist's and therapist's time. (*Berlin Klin. Wochenschr.*, No. 11, 1893.)

G. J. KAUMHEIMER.

BROMIDE OF GOLD AND POTASSIUM.—Goubers, in 1889, recommended the tri-bromide of gold as a remedy for epilepsy. As this salt is difficult to preserve, Merck suggested

the use of potassio-auric bromide instead. Iwan Jankura and Laufenauer (*Pest. Med. Chirurg Presse*, 1892, p. 574), have used this salt with good results in very severe cases of epilepsy and hystero-epilepsy. The attacks decreased in intensity, duration and frequency. At first, they administered the salt by the mouth, but as the action was unsatisfactory, they resorted to the hypodermic use of the 2 per cent. solution. The hypodermic dose of the salt is from 1 to 4 centigrammes. The medium dose is 2 centigrammes. They observed, as incidental effects, about half an hour after injection, chilliness, rigor and praecordial pain, which soon disappeared. Even maximum doses caused no inflammatory reaction. (*Wien Med. Presse*, No. 5, 1893.)

G. J. KAUMHEIMER.

ANALGEN.—Loebell and Vis have introduced a new chinolin derivative under this name. Trials in Bäumlér's clinic demonstrate that it is often of value, although, like all the other synthetic compounds, it frequently fails. It is used in the various forms of neuralgia, rheumatic and muscular pains. The average dose is 0.5 gm., the daily dose up to 5 gms. Unpleasant sequelae were not observed. (*Prag. Med. Wochenschr.*, No. 1, 1893.)

G. J. KAUMHEIMER.

SULPHATE OF DUBOISINE.—Loiacono and Masuro (*Il Pisani*, XIV) review the literature of duboisine and give their own experience in its use in the insane. The following are their conclusions: 1. The neuter sulphate of duboisine of Merck is an excellent sedative in all forms of psychic and motor agitation and especially in the maniacal form. It is superior to the other sedatives used up to the present time in its almost certain prompt effect, in the ease of its administration which is independent of the will of the patient, and in the absence of the inconveniences attending the use of hyoscyamine and hyoscine. 2. It is an excellent hypnotic also, independently of its sedative effect, although in that its action is much more marked. The sleep produced is very similar to physiological slumber. 3. It has no elective action for the female sex and the different results obtained should be attributed to the different degree of individual re-action. 4. The dose varies from $\frac{1}{2}$ milligramme to $1\frac{1}{2}$ milligrammes. The average dose that, in the great majority of cases gives all the therapeutic effects without any uncomfortable symptoms, may be stated as about 1 milligramme. The authors also tried the effects of this agent upon a number of epileptics

who under the exclusive bromide treatment had very frequent fits and noted a very marked diminution in the number of the attacks after its use in about two-thirds of the cases or 66.6 %. In the remaining 33.3 % it was either not helpful or actually damaging in its effects. In three cases of status epilepticus it seemed useful in one, and of no advantage in the others. They think as duboisine acts as a sedative, quieting the agitation due to artificial irritation, it will be useful in epilepsy due to the same causes, while it fails in those cases connected with permanent anatomical causes, such as tumors, connective tissue degenerations, etc. While the injections by themselves were largely useful they found the best effects to follow the combined use of bromides internally with the hypodermic injections.

H. M. BANNISTER.

ANTIPYRINE HABIT.—Dr. L. Cappelletti has (*"Ann de Psych,"* June 1893) had under care a twenty-three years old hysteric girl who acquired the habit of using 2 drs. of antipyrine daily. The least reduction of the dose was perceived by her. Rapid reduction to 30 gr. resulted in nausea, vomiting, pallor and almost complete collapse with intense headache. A second attempt at reduction resulted in an acute confusional hallucinatory delirium. Progressive diminution finally resulted in recovery.

J. G. KIERNAN.

MORPHINE HABIT.—One of the latest theories is that the morphine-habit is due to the conversion of the drug in the system into oxdimorphine to prevent whose effects the habitué must use morphine as a counter-poison. As Patrein has shown (*"Bull. Gen. de Therap,"* May 8, 1893) this is an almost pure hypothesis with but few facts to support it.

J. G. KIERNAN.

CAMPBOR MONOBROMATE IN VERTIGINOUS EPILEPSY has given good results according to Bourneville (*"Progres. Med."* May 6, 1893) whose observations extend over eight years. Sometimes the vertiginous attack apparently at first increase but a decrease soon results.

J. G. KIERNAN,

PARALDEHYDE HABIT.—Elkins reports a case of a man who had suffered from insomnia seven years. Two and one-half years ago began to take paraldehyde. The habit was soon formed

and patient took as much as 16 oz. a week. On admission patient was anxious, anaemic, emaciated, tremulous and restless; gait unsteady; breath smelt of paraldehyde; heart's action feeble, irregular and intermittent. After being in asylum a few days mental symptoms became more marked, had visual and aural hallucinations, as well as unpleasant delusions. For first three nights paraldehyde was given. A week after admission sulphonal was administered with apparently good effect. The author draws attention to the resemblance of the above symptoms and delirium tremens with the exception of extreme emaciation, the effect on the heart, and abnormally large appetite in the paraldehyde habit. Patient discharged in three months. (*British Medical Journal*, Aug. 19th, '93.)

B. M. CAPLES.

SURGERY AND TRAUMATIC NEUROSES.

TREATMENT OF CEREBRAL LESIONS.—Vizioli concludes, in regard to the treatment of cerebral lesions: 1. The therapeutic measures must either modify the nutritive processes (iodine, arsenic, etc.), moderate the increased excitability (bromides, chloral, opium, sulfonal), or decrease the vascular pressure (leeches, directly by galvanization of the head, indirectly by galvanization of the sympathetic), or improve the bodily condition. The hygienic measures are the most important of all. 2. Operative procedures are indicated in the Jacksonian form of traumatic epilepsy, if the affection is not so old as to lead us to expect irreparable organic changes in the brain, or so recent that the focal symptoms cannot be clearly distinguished from remote and general symptoms. In the other forms of epilepsy, operation must be advised with great caution. In primary, essential epilepsy it is directly contra-indicated. 3. In distinctly located cerebral abscess, operation is a conservative and life-saving measure. 4. In cerebral tumors with pronounced motor symptoms, and in tumors of the membranes or internal periosteum, operative treatment must be considered. Trephining is also indicated in cases in which the tumor has a different location, and reduction of the intra-cranial pressure is necessary. Surgical measures are absolutely dangerous in tumors of the pons, cerebellum, peduncles and the region around the medulla. 5. In cerebral hæmorrhage, hæmatoma, with complicated fractures or depression of the skull, trephining must be resorted to if focal symptoms are present. 6. Stringent anti-

sepsis before and after operation and the proper accessory medication are, of course, necessary. Electric irritation of the exposed brain is of value in determining the presence of motor regions under the coagula often found. (*Wien Med. Wochenschr.*, No. 3, 1893.)

G. J. KAUMHEIMER.

OPERATIVE INTERFERENCE IN GUNSHOT WOUNDS OF THE SKULL.—At a late meeting of the Berlin Medical Society, v. Bergmann gave his experience, based on 25 cases of perforating gunshot wounds of the skull observed within the last nine years. Clinically, these can be divided into three grades according to the severity of the symptoms shown. The first class comprises those cases brought into hospital in profound coma, so that the presence or absence of focal symptoms cannot be determined. These patients either die soon from the increasing intracranial pressure, presenting Cheyne-Stokes respiration near the end, or the symptoms may remain stationary and then improve. Some of these last recover. In the second class, the coma is absent or only slightly marked, but they present localized spasms or contractures, hemiplegia or monoplegia. In the third class all symptoms are wanting, although, from the direction of the wound-canal, perforation is evident. The use of the probe is not allowable. In the first class, the symptoms are due, usually, to injury of the ventricles with meningeal hæmorrhage. The prognosis varies according to the extent and location of the extravasation. In the second group the injury is always in the cortex, either before or behind the central fissure. In the third group the frontal or parietal lobes are injured. Of these considerable portions may be destroyed without serious symptoms. Bullets of 7 and 9 mm. do not penetrate far into the brain, and often are found under the dura, but produce contusions of considerable area and fragments of bone are always found in the cortex. The result of penetrating wounds of the skull depends on our ability to prevent suppuration. If we are successful, the contused portions undergo yellow softening or are transformed into a pigmented or cystoid scar, as in an apoplectic focus. If unsuccessful, we may get purulent meningitis with a lethal termination. Of Bergmann's twenty-five cases fifteen recovered. In three cases, trephining was done. All were very severe cases, five dying within the first 48 hours; one died of abscess of the frontal lobe. The third group furnishes no indication for operative interference. In the cases of the first group an attempt should always be made to remove the foreign body. In the second class, where the signs of irritation come on later, operation is hardly indicated, as the

symptoms are due to disturbances of circulation which are not influenced by trephining, but will usually disappear spontaneously. It is an open question whether removal of the bullet is necessary as a number of cases are known in which the symptoms disappeared although the bullet remained. The only question is whether they would vanish sooner if the foreign body were removed. If profound symptoms supervene immediately upon injury, trephine liberally and remove the foreign body. The symptoms are analogous to Jacksonian epilepsy due to an irritating cicatrix; by removing the bullet we get a more favorable scar. A second indication for operation is extensive comminution of skull and scalp. *In all other cases protect the wound aseptically and let it alone.* (Deutsch. Med. Wochenschr., Nov. 27, 1893.)

G. J. KAUMHEIMER.

THE PRESENT STATUS OF BRAIN SURGERY.—The writer says, “the last five years represents a wonderful advance in this special work. It is within this period that operations upon the brain for the relief of pressure, removal of clots, excision of tumors, drainage of abscesses, and for the relief of epilepsy, imbecility and insanity have been performed with any degree of success. Craniotomy has been performed repeatedly for microcephalus and kindred conditions. Starr reports thirty-four collected operations for this purpose of which number fourteen died from the operation. Operations for the relief of congenital malformations characterized by the protrusion of intracranial contents are becoming of frequent occurrence. Case, aged eighteen months was operated upon for relief of a congenital, pulsating, occipital hydrancephalocele the size of a glove orange. The tumor communicated with the right ventricle, and was treated by a clean excision without drainage. Child made an uneventful recovery. Trephining for relief of insanity following injury to the head, and operations for general paresis have been performed with but little success. Cases of headache resulting from blows upon the head, without fracture have been trephined with success—reported by Horsley and Weis. Chien reports such operations for relief of headache from brain tension due to inoperable tumors, removing large areas of bone and thus alleviating great suffering. Even fractures with clot-pressure at the base of the skull have been successfully operated upon. F. Dennis, of New York, proposed antiseptic tamponade of the nose and ear in cases of basal fractures. The writer reports a case of depressed fracture of the right frontal sinus. There was nasal hæmorrhages from a bleeding vessel of the diplœe carried to the nose through the frontal sinus.

Antiseptic tamponade of the nose was practiced to prevent infection from below. Recovery rapid and complete. Jacksonian epilepsy in which the spasm is localized, is receiving attention, the medical localization to be accepted for the trephining area rather than the scar, depressed fracture or site of previous injury at a distance. In secondary operations, the relief must be only temporary as the site of operative injury may be followed by similar conditions to those resulting from the primary injury. Hæmorrhage with pressure following injury should be trephined; also selected cases of spontaneous hemorrhage. During the past fifteen years about thirty cases of successful removal of clots from the brain have been reported. Gunshot wounds should be freely exposed, the bullet removed if possible and the wound drained; punctured wounds produce more or less depression or splintering and should be freely exposed. The opening through the skull for brain abscess must be ample in size to admit of thorough exploration, and the abscess cavity drained until it closes from the bottom. Cases of brain tumor in which the location is considered as near the cortex in the convexity of the brain should be submitted to operation. The writer calls attention to the necessity for antiseptic methods. It requires forty-eight hours to free a scalp from germs. The markings for cerebral localization should be made with iodine before giving the anaesthetic, and just before the incision, all important points may be noted by punctures in these lines and a scratch upon the bone. Hemorrhage is best controlled by hot sponge pressure and when from a bony canal the edge of the bone crushed or the opening plugged with catgut cut short. Bone chips should be reimplanted, and drainage is seldom necessary for the best results. (C. H. Mayo, M. D., *Northwestern Lancet*, July 15, '93.)

T. H. HAY.

SUCCESSFUL REMOVAL OF GLIOMA OF ROLANDIC REGION.—Albertoni and Brigatti, *Riv. Speriment*, XIX, 2, March, 1893, report the successful removal of a fibro-glioma from the right hemisphere of a girl of 15, which they hold to be of interest for the following reasons: (1) It is the first successful case of removal of intra-cerebral glioma (the case was operated upon in September, 1891, and examined as late as January, 1893) when the patient was in good general condition and improving slightly as regards some of the paralytic symptoms remaining after the operation, although it necessitated considerable loss of brain substance. There was no appearance of return of the tumor. The symptoms prior to the opera-

tion were Jacksonian epilepsy with also complete attacks, slow progressive paresis of the left limbs, with exaggeration of the reflexes, symptoms of intra-cranial tension, headache and bilateral optic neuritis. Sensibility retained. The operation caused cessation of the epilepsy, the paralysis was not increased, but has since improved in the left leg, the exaggerated reflexes continue. The special points, however, to which the authors call attention are, the complete disappearance of the optic neuritis and the appearance of sensory disturbances after the operation. The former indicates very clearly the connection between the papillitis and the tumor and the latter involving, as it did, the tactile, pain, thermic and muscular senses, has an important bearing on the controversy as to the location of sensory functions in the cortex. The motor paralysis remained still marked in the superior member, as might have been expected, the arm center being the cortical region principally involved. The improvement in the leg supports the view of the lower centers and more automatic functions of that limb.

H. M. BANNISTER.

TREPHINING FOR CEREBRAL SOFTENING.—Lanphear recommends trephining of the skull in cases of softening as the result of hæmorrhage, embolism, or thrombosis, for the relief of such symptoms as mental irritability and mental aberration. He reports the case of a man of fifty-six who had been hemiplegic and asphasic for six years as a result of cerebral hæmorrhage. A pint of broken down brain and other debris of creamy consistence was evacuated, cavity washed out with sterilized solution, and antiseptic dressing applied. No change in palsy or aphasia but mental condition was decidedly and permanently improved. (*University Medical Magazine*, July.)

B. M. CAPLES.

TREPHINING FOR SUBDURAL HÆMORRHAGE.—Reigner reports a case of trephining and subsequent osteoplastic operation. A boy seven and one-half years fell from first story to pavement, admitted unconscious. Over left temporal region large hæmatoma and marked right hemiparesis. Following day both paresis and unconsciousness diminished; fourth day hæmatoma disappeared so as to allow a bony defect to be felt running up from the ear to the sagittal suture. The spasms then appeared on right side of face, choked disk present. Speech lost. Patient trephined on sixth day. No hæmorrhage between dura and bone. Dura was opened and much

blood, partly fluid and partly clotted, mixed with brain matter, escaped. Clonic spasms ceased at once. Boy was up on fourteenth day, could understand when spoken to but could not speak spontaneously or repeat. Eight week after injury was beginning to learn simple words. Consent not given to osteoplastic operation until one and one-half years after accident. An operation after König's method was performed with success. The previous paresis as well as clonic spasm was clearly due to pressure. Broca's convolution was obviously partly destroyed and it was doubtful at one time whether the complete motor division would disappear. The case shows that the child's brain is in much better condition to build up the lost speech functions than the adult brain, in which after an injury to Broca's convolution prognosis is very unfavorable. (*British Medical Journal*, August 19, '93.)

B. M. CAPELS.

SUCCESSFUL TREATMENT OF PROGRESSIVE AMBLYOPIA BY TEMPORARY CRANIECTOMY.—The patient was admitted to hospital with a diagnosis of cysticercus cerebri. The patient, who had never had syphilis, was a hard drinker. Examination showed deviation of the tongue to the left, diminution of smell and complaints of noises in the left ear, headache and considerable loss of memory. The left eye was totally blind, the vision of the right eye was one-third, with a severe grade of choked disc. As the skull over the left frontal lobe was more sensitive than other parts and focal symptoms were absent the lesion was located there. A combined skin and bone flap 4 cm. square was lifted up over the left frontal lobe. The dura was very tense, but careful palpation could not demonstrate any tumor. There was no pulsation of the exposed brain. On incising the dura, a considerable portion of the brain prolapsed and was shaved off, as it could not be reduced. The prolapse recurred. A long hollow needle was then passed into the ventricle and over 100 cc. of clear fluid evacuated. The prolapsed brain sank back into the skull after this, so that suture of the dura was possible. The course of the case was favorable, the loss of memory and headache disappeared and the vision of the right eye became $\frac{1}{2}$. This is the first case published in which puncture was performed successfully for acute hydrocephalus in the adult. (*Wien Med. Blaett.*, No. 21, 1893.)

G. J. KAUMHEIMER.

RESECTION OF THE SYMPATHETIC FOR TRUE EPILEPSY.—Bogdanik, after giving a short review of the various operations for the cure of epilepsy, gives the history of an interest-

ing case. His patient was a delicate boy of 16, whose convulsions first appeared at the age of 14, after a box on the ear. The convulsions, which were attended by unconsciousness, occurred from one to five times a day. An incision, 6 cm. in length was made along the interior border of the left sternomastoid muscle, after which the dissection was made with blunt instruments. The middle ganglion, which lies upon the inferior thyroid artery, was easily found and excised. This was done November 14, 1892. After that time no generalized convulsions occurred, but only short spasms of the right arm. These occurred occasionally, but not daily until December 14, 1892. Since that time he has been perfectly well and has improved greatly in looks. (Date of publication, April 16, 1893.) (*Wien. Med. Presse* Nov. 16, 1893.)

G. J. KAUMHEIMER.

CASE OF SPONDYLOLISTHESIS, ASSOCIATED WITH PROGRESSIVE PARAPLEGIA, LAMINECTOMY.—Arbuthnot Lane reports in *Lancet*, April, a case occurring in a servant woman, who had at different times received blows upon the back. Some years later her walk became insecure, she rolled about especially to right; suffered no pain but found difficulty in carrying heavy loads up and down stairs. Form of lumbar spine altered; lumbar vertebræ abnormally low compared with iliac crests, spine of fifth being deeply buried; sensation of touch, heat, pain and cold somewhat impaired over lower extremities, though in parts but slightly; slight oedema of legs; knee jerks absent, no ankle clonus; cauda equina probably unequally compressed: lumbo-sacral joint apparently normal. By operation spine and laminæ of fourth lumbar vertebræ were removed, but found compression existed below. Upon removal of laminæ of fifth the dura matral sheath of cauda equina on right side was so compressed as not to expand when bone was removed and opposing dura matral surfaces were adherent. The posterior of fifth lumbar vertebrae about three-fourth of an inch in front of normal position. No evidence of fracture found, differed from most cases of kind in excessive amount of forward displacement. Cause of deformity ascribed to hard work, blows upon back having probably diminished security of lumbo-sacral articulation. A point regarded of interest is the absence of reflexes of knee and ankle, while sensation was but slightly impaired.

T. W. BISHOP.

REMOVAL OF THE GASSERIAN GANGLION AND THE CENTRAL PORTION OF THE FIFTH NERVE.—Prof. Fedor Krause reports two cases in which he performed this operation for inveterate

neuralgia. His method has been described in this REVIEW (December, 1892.) He now modifies this by doing it at one sitting, instead of tamponing and waiting several days before excising the ganglion. The result in the four cases has been satisfactory. The article is illustrated by three cuts and should be consulted by all who contemplate attempting this operation. (*Deutsch. Med. Wochenschr.*, No. 15, 1893.)

G. J. KAUMHEIMER.

REMOVAL OF GASSERIAN GANGLION.—Clayton Parkhill reports the above case of a woman aged 60. Eight years ago the first division of the first nerve on the left side began to be the seat of pain. Soon after second division became involved. three years ago third division. Eight years ago second division of the nerve was excised at its exit from the infraorbital foramen. This gave relief for about five months. Second operation performed, all three divisions excised at their exit from their respective foramina. This gave relief for about five months. Third operation six months after the second, similar in character to the others, confined to the second division gave no relief. Began taking morphine for relief of pain, dose gradually increased until she took 120 grains per week. During the last year she has inhaled chloroform from a bottle almost constantly while she was awake, consuming 4 pounds in the last ten days preceding the operation. Since admission to the hospital has taken from 12 to 15 grains of morphine each day hypodermically in addition to the chloroform. The method of operation was practically that of Rose. Progress to recovery was uninterrupted. Pain was completely and permanently relieved. (*Medical News*, Sept. 16.)

B. M. CAPLES.

CURE OF TRIGEMINAL NEURALGIA BY STRETCHING OF THE FACIAL NERVE.—Schulze-Berge reports the case of a woman who had suffered for six years. The excision of the buccal nerve was of no use. Before attempting resection of the nerve at the base of the skull, he stretched the facial nerve, in the hope that the resulting paresis would remove a source of sensory irritation. The pain ceased on the fifth day. The author attributes the pain to a mechanical impression on the nerve. He suggests that it precede resection at the base of the skull in all cases.

TREATMENT OF NEURALGIA BY LAXATIVES.—In the discussion on the above paper Esmarch stated that no operation should be thought of until the method of Strohmeyer and

Gussenbauer, that of derivation by way of the intestinal canal, which had cured most obstinate cases of facial neuralgia, had been tried. In his clinic he cures all cases of sciatica by the administration of castor oil. Gussenbauer declared that he could cure eight or nine cases out of every ten in this manner. Only refractory cases should be operated. (*Deutsch. Med. Wochenschr.*, No. 22, 1893.)

G. J. KAUMHEIMER.

CONVULSIVE TIC--Dr. Terribery: Patient was male, aged 30, married. Father died of senile gangrene, mother of hemiplegia. Previous to last nine years used alcoholic stimulants excessively. Between eight and nine years ago noticed slight twitching of muscles of left eye, gradually became more marked, extending to cheek. Soon all muscles of left side of face were involved in spasm; intervals of an hour or two between the jerks; present during sleep. Trouble was aggravated by talking and emotional excitement. Examination failed to reveal any organic trouble either central or peripheral in course of seventh nerve that could act as a cause. The facial nerve was stretched after the method described by Baum, force employed between 4 and 7 pounds. Immediate result was complete paralysis of muscles on left side of face. No effect upon hearing, taste or palate muscles, showing that effects of traction are not felt centrally. Gradual return of voluntary control of facial muscles was noted. This steadily increased. The face movements were perfect. There has been no return of spasm since the operation. (*Journal of Nervous and Mental Disease.*)

B. M. CAPLES.

NEURECTOMY IN SPASMODIC TORTICOLLIS.—Gardner and Giles reported two cases, one of spasmodic torticollis and the other of retrocollic spasm with torticollis which were treated by exposure and partial resection of both spinal accessory nerves and subsequent division of the posterior branches of the second and third cervical nerves. Treatment was completely successful in the first case, nearly five years having elapsed since the last operation. In the second case operation was twice followed by cessation of all bad symptoms save some trifling spasmodic movements of the deep rotators of the left side which it is anticipated will be completely cured by another operation. (*British Medical Journal*, Aug. 19, '93.)

B. M. CAPLES.

TRAUMATIC NEUROSES.—Dr. H. N. Moyer says there is no doubt that many organic functional disturbances of the nervous system have their origin in traumatisms that are relatively insignificant, that produce no solution of continuity of the surface or appreciable alteration of the deeper lying tissues. The author states that traumatism may set up any disturbances of the function of the cord. One may have lateral sclerosis, tabes, transverse myelitis, or meningitis. The symptoms of nervous derangement due to railway injury are not characteristic, as a fall down a stairway or from a step-ladder may produce precisely the same symptom group. He omits the term spinal concussion altogether as standing for a pathological entity. Traumatisms of the spine are divisible into three great groups; first those of functional character which may be called spinal neurasthenia. The second group includes all the systematic and unsystematized organic lesions to which the cord is liable. The third group includes injuries such as strains of ligaments and muscles, as well as fractures of the bones composing the spinal column and which may be followed by the varying symptoms of spondylitis. The classification of head injury cases is the same that is followed in the spinal. We have, first, the functional, which includes the cerebral type of neurasthenia, then the group accompanied by mental changes and thirdly, those which include the organic disturbances such as hæmorrhage, etc.; lastly, the class in which there is rupture of the membranes or fracture of the bones. Perhaps the frequency of a certain class, namely, the epileptics, would entitle them to separate mention. (*Chicago Med. Recorder*, Aug. '93.)

PROGNOSIS OF RAILWAY SPINE.—This was the subject of an article by Dr. Dercum before the Pan-American Medical Congress. He described a case in which a blow to the back was followed by the usual symptoms of painful back associated with neurasthenia and hysterical symptoms. The case was considered as a typical railway spine, so-called, without the element of litigation. It was therefore considered as a suitable case on which to test the possibility of the rest-cure and which might perhaps enable us to answer the question so often asked of the expert in court: "Will the patient recover, and if so how long a time will it require?" After five and one-half months of treatment in a special hospital, almost complete recovery ensued. The medico-legal value of the result was also considered. The author in conclusion said he had seen many cases in Philadelphia and that the muscles and ligaments suffer most and that the the psychic symptoms indicated neurasthenia. (*Medical Record*, Sept. 16.)

PSYCHOLOGICAL.

PATHOLOGY AND SYMPTOMATOLOGY.

PARANOIA FROM A MEDICO-LEGAL STANDPOINT.—The author, after giving an historical sketch of paranoia, defines it as being: "A form of insanity occurring in individuals neurotically predisposed, arising, almost without exception, primarily, whose chief symptoms are systematized delusions and an abnormally exaggerated self-esteem." The author divides the disease into two classes: acute paranoia and chronic paranoia. The rare acute form is curable, the chronic not. Crimes committed by acute paranoiacs are characterized especially by inconsiderate fury, occur suddenly without premeditation and probably stand in close relation with an hallucination. In civil life acute paranoia is quite easily recognized because of premonitory and accompanying symptoms, while attacks occurring in convicts are more difficult of diagnosis, because the changes in disposition are not noticed or are ascribed to inherent meanness. The histories of these cases are the guiding lines to the diagnosis.—*Chronic Paranoia* which is one of the most common forms of insanity, must be divided into two main groups: paranoia hallucinatoria chronica and paranoia simplex or incompleta. The former usually dates from puberty and is characterized by hallucinations; the latter appears before puberty and does not as a rule progress to dementia as does the former; hallucinations are not prominent and crimes are committed coldly with premeditation. These individuals are often very gifted, and among prominent sufferers from this form (p. simplex) may be mentioned Möbius and Jean Jacques Rousseau. This class has many subdivisions among which are: paranoia querula, p. reformatoria, p. politica (Krafft-Ebing) to which class Guiteau belonged; (Guiteau's brain showed considerable cortical degeneration,) p. religiosa, p. alcoholica and p. sexualis. Paranoiacs above all other insane patients understand concealment of their delusions and the diagnosis is often difficult in the first stages of the disease. Chronic paranoiacs being incurable and dangerous to society should always be taken care of by the state, both as a measure of protection from their own acts and to keep them from begetting tainted offspring."

UNCONSCIOUSNESS AND AMNESIA IN EPILEPSY.—G. Dotto, *Il Pisani*, XIV., reports quite fully four cases of epilepsy with special reference to their stigmata of degeneracy and their mental condition. The question as to the absence of consciousness or memory in all cases is discussed and decided in the negative and caution is advised in medico legal cases against excluding epilepsy because of evidence of consciousness and memory of acts. The author concludes that: The cases reported show: (1) The great affinity that exists between epilepsy and moral insanity, so that the one may with reason be considered an equivalent of the other. (2) That in the epileptic there exists a combination of anthropological characters by which that called by Féré diagnosis of the predisposition is possible up to a certain point. (3) That unconsciousness and amnesia are not pathognomonic of psychic epilepsy.

H. M. BANNISTER.

INVERSION OF THE PUPILLARY REFLEX.—In the same issue, p. 5, Dr. Dotto reports two cases, one of meningitis and one of epileptic dementia, in which the reaction of the pupil to light was reversed, a bright light producing mydriasis instead of contraction of the pupil. He does not attempt to explain the phenomenon (which is perhaps most often observed in paresis and is there often attributed to general cortical vasomotor, etc., changes), but considers it is not explicable in the present state of our knowledge.

H. M. BANNISTER.

GASTRIC CHEMISM IN PELLAGRA.—The following are the conclusions of a memoir by Agostine, *Revista Sperimentale*, XIX, I, in which he studies the subject of the gastric chemical changes in pellagra: 1. The study of the gastric chemists in the pellagrous cases reveals a notable grade of hypopepsia and hyperacidity and a catarrhal condition of the gastric mucous membrane and a weakening of its motor power and innervation. 2. The gastric juice of these patients has a weak acid reaction to heliotrope, rarely reacts to Congo paper or to Guenzberg's liquid. The total acidity varies from 0.10 to 2.20; the mean equals 0.82 %. The hydrochloric acid varies between 0. and 0.71; the mean is 0.16 %. It was found lacking in half the observations and always in conditions of diarrhoea and pellagrous cachexia. The quantity of organic chlorine varied from 0.26 to 1.70, the average was 0.58 %. The amount of fixed chlorides varied from 0.44 to 2.17, the average was 1.47. The total chlorine oscillated between 1.50

and 3.00, the average was 2.36 %. The value of the quotient a varies from 0.50 to 3.56, the mean was 1.60. 3. The gastric digestion is therefore carried on slowly and insufficiently, as is shown by the absence or slight proportion of free chlorohydric acid, the scarcity of peptones and organic chlorine, the index of satisfactory gastric performance, and the slight acidity; and in an abnormal manner, as is shown by the presence of mucus and the marked production of organic acids, especially the abundant lactic acid. 4. The small proportion of free and organic hydrochloric acid that is especially marked in periods of diarrhoea and cachexias contra-indicates a diet rich in albuminoids. 5. The washing out of the stomach with saline water, the administration after eating of chlorohydric acid, contributes to benefit the gastric chemical conditions, and consequently the digestive functions of pellagrous cases.

H. M. BANNISTER.

THE GRANULATIONS OF THE VENTRICULAR EPENDYMA:—The following are the conclusions of an article by Pallizzi, *Revista Sperimentale* XIV I.—(1.) The granulations of the ependyma met with in the chronic form of primary and secondary dementia are made up exclusively of neuroglia cells. (2.) They have their origin in the neuroglia cells between deeper layers of the ependymal connective tissue and the walls of the sub-ependymal vessels; probably from those scattered or variously grouped cells met with in contact with the walls of the vessels. (3.) The accumulation of neuroglia cells in the localities described in the preceding paragraph, in which are observed karyokinetic figures, should be considered as the initiative stage of the granulations. (4.) In their development they assume a more or less marked ovoid form; their constituent cells are more or less separated and send out their prolongations chiefly in a horizontal plane. (5.) When the granular ependymitis exists, there are also more or less serious alterations of the walls of the vessels.

H. M. BANNISTER.

THE ALTERATIONS OF THE PERIPHERAL NERVES IN GENERAL PARESIS.—G. Dotto, *El Pisani* XIV p. 169, reports autopsies of eight cases of paresis in which he carefully examined by several methods (both fresh and after hardening) the peripheral nerves (various cranial nerves and nerves of the brachial and lumbar plexuses.) His general results were as follows: The alterations met with were those of parenchy-

matous neuritis in different degrees. This was constant in all the observations, the variations in the intensity of the pathological process in each, it is suggested, were possibly in relation to the intensity of the clinical symptoms. The cranial nerves were least affected in comparison with the others. The alterations were not systematic in their distribution, sometimes involving the motor, sometimes the sensory nerves, which fact in part explains, the author holds, the varied clinical syndromes of the disease. It also supports the view that we have in paresis a widely disseminated degenerative process affecting the most diverse organs of the nervous system.

H. M. BANNISTER.

TEMPERATURE IN GENERAL PARALYSIS OF THE INSANE.—Dr. Peterson in an article before the American Neurological Association. He at first reviewed the literature of the subject, calling attention to the statements of various authorities, that the average bodily temperatures are in general paresis subject to extraordinary daily variations, that the average bodily temperatures are subnormal and that axillary assymetry of temperature is particularly frequent. With the assistance of Dr. Langdon the temperature of twenty-five cases from the wards of the Hudson River State Hospital for the Insane were carefully studied. Observations were made every two hours for one week in each case and in ten cases temperatures were taken in two axillae simultaneously every two to four hours for a week. He reaches the following conclusions. 1. As regards the average bodily temperature, it corresponded with physiological norms. The statements in literature as to hyperpyrexia averages could not be sustained. 2. The diurnal oscillations of temperature in paretics also correspond to physiological norms. Observations found in literature as to frequent extraordinary daily variations in such cases seemed to be absolutely erroneous. 3. Assymetrical axillary differences were so small that they could not be considered as abnormal and certainly not of any diagnostic significance. 4. When unusual variations of temperature occur in general paretics, their cause must be sought for in conditions not related to the pathological phenomena of paralytic dementia, but depending upon other thermogenic features unrecognized by the physician or masked by the mental state of the patient. Dr. Gray of New York said that a large number of different pathological conditions are often included under the name of general paresis. He thought a number represent the terminal stages of intra-cranial syphilis. Dr. Mills

regarded the manifestations of general paresis as so diverse in character that we can thus account for the different experiences of various observers. (*Med. Rec.*, Aug. 12.)

B. M. CAPLES.

POST-CHOLERAIC INSANITY.—Séglas has recently reported (*"Ann. Medico-Psych,"* May-June, 1893,) a case of insanity occurring after cholera which presented the primary confusional type.

J. G. KIERNAN.

FOLIE A DEUX.—Dr. F. L. Arnauld concludes (*"Ann. Medico-Psych,"* May-June, 1893,) that three forms of folie a deux may be distinguished: First: Imposed insanity, characterized by the minimum of resistance of the passive element against the active. Sometimes this influence does not extend far enough to render the passive agent, strictly speaking, insane. Separation here is imperatively indicated and gives excellent results. Second: Simultaneous insanity, in which the influence of one patient is not specially traceable, but in which the insanity arises under the influence of like exciting and predisposing causes. Separation is here indirectly of therapeutic value. Third: Communicated insanity, in which the passive agent does not succumb until he has spent all his cerebral force. In such cases, separation does not cause disappearance of the psychosis which continues to develop.

J. G. KIERNAN.

DISSIMULATION IN THE INSANE.—Laroussine (*"Rev. Intern'l. de Biblio. Med.,"* June 25, 1893,) states that dissimulation is frequently met with in the insane. Classification into dangerous and non-dangerous dissimulators is necessary for the protection of the patient as well as of society. Dissimulation is especially frequent among persecutory lunatics and the paranoiacs. Of the impulsive types the pyromaniacs are especially likely to dissimulate. Dissimulation may be partial (involving some delusions or acts only), or total, when all insane manifestations are concealed. Dissimulation usually has for motive, shame or interest. The last is the principal motive. To expose dissimulation the confidence of the patient should be secured, or if this cannot be done careful surveillance is necessary. Patients often dissimulate for months. As patients often betray themselves in letters, they should be encouraged to write.

J. G. KIERNAN.

INSANITY OF THE AGED.—Dr. Frank P. Norbury says the symptoms of chronic cerebral atrophy in the aged are those of despondency with suicidal tendencies, maniacal outbreaks, inhibited intellection, transient paralytic affections of speech, monoplegia, and vertigo. These symptoms are often associated with those of cardiac or renal origin. In senile dementia there is a characteristic amnesia, sudden changes of moods and emotions and the development of delusions, with wakefulness at night and a tendency to wander away from home. The author emphasizes the importance of distinguishing between chronic cerebral atrophy with its primary degeneration of nerve cells, and senile dementia with its more special forms of degeneracy.—(*North American Practitioner*, June.)

INSANITY IN CHILDREN.—Dr. Harriet Alexander says among the earliest manifestations of morbid mental activity in children are hallucinations. They may involve all the senses. They are excited by simple causes such as indigestion. Children who are predisposed to night terrors, etc., are very sensitive, over-imaginative and intellectually precocious. (*Alienist and Neurologist*, July '93.)

THE AMOK OF THE MALAYS—Dr. Ellis, superintendent of the Government Insane Hospital at Singapore, has an interesting article on this subject. All are familiar with the expression “to run amuck” but this is the first scientific account of it that we have read. It seems to be a characteristic of the Malay race and it has been a question whether it was due to mental disease or simply to viciousness. It gives the history of a case which seems to be fairly illustrative of the class. The man had been greatly distressed by the loss of his wife and child and it preyed upon his mind. He had been depressed and his acquaintances had noticed that his manner was changed. One day he ran into the street and before he was arrested he had injured ten people, eight of whom died. He was executed for the crime, but declared on trial he had no recollection of it whatever. The author thinks that the Amokers are insane. In their fury they attack people indiscriminately and sometimes mutilate them horribly. They are quite as likely to attack people whom they have never seen as those whom they have known. In fact their violence seems to be entirely devoid of purpose or rather the result of uncontrollable fury. It would seem that the Malays are very impulsive and emotional, just such as would readily develop such an affection.—*Journal of Mental Science*, July.

QUASI-INSANITY IN CHILDREN.—Dr. Mills has an article on the above subject. The author says not a few may be properly regarded as on the border land between mental health and disease. These he classes as examples of partial or quasi-insanity. Some of the best examples of these may be seen in those suffering from morbid doubts and fears and have been described under many names. They are psychoses which lead some times to oöphorectomies and laparotomies, to uncalled for operations and treatment of various sorts on all parts of the body. They are abortive or imperfectly developed mental disorders; sometimes transient in duration as they are limited in phenomena. They are sometimes observed among young children, although more common after than before the period of puberty. Their most striking illustrations occur in those who have not been subjected to physical or mental strain sufficient to break down a healthy organization. Persistent fear of monomaniacal type occurring in children is rarely due to over-work at school, as is frequently supposed. The cause is generally in the child's progenitor or progenitors. Some cases belong to a class which has been described as pantophobia or fear of everything. Hurd reports one case of a girl who, when 12 years old, began to have strange fancies, as fearing that the blood flowing from a cut finger would harm those who came near her. Later, dressing, walking out of doors, eating, were all greatly interfered with through the same morbid ideas. She feared contagious disease because she might communicate it to others. The insistent idea changed from time to time, but seemed to spring always from an emotion of fear. She eventually recovered. A boy, 11 years old, developed what was practically a pantophobia, although his disorder exhibited itself chiefly as a pathophobia or fear of disease. Sometimes his morbid ideas revolved around real affections of slight importance, sometimes his fears and sufferings were due purely to morbid conceptions and insistent ideas. His morbid notions and apprehensions were fed and encouraged by the unceasing attentions of members of his family. He was practically cured by taking from his home surroundings, disregarding his complaints, forcing him to do things on time and after the manner of others, at the same time carefully, but not obtrusively, looking after the general health. Another case improved greatly under mental discipline, out-door exercise and careful tonic treatment. (*N. Y. Medical Journal*, August 26.)

B. M. CAPLES.

LACTATIONAL INSANITY.—Dr. Rohe has an article in the *Journal of the American Medical Association* entitled as above

and reports the following cases that have been admitted to the Merrill Hospital for the Insane, the last two years. They form 7.4 % of the total number of women admitted during this period. He classifies the cases clinically as melancholia two, mania one, confusional insanity two. Of the latter one died and the other progressed to profound and consecutive dementia. Case of mania was discharged after six months treatment perfectly recovered. One case of melancholia discharged recovered after repairing badly lacerated cervix, the other case is still under treatment though much improved. Case 1. Five months previous to admission gave birth to a child, four months had an inflammation and abscess of one breast and immediately following it a change in her mental condition was noticable. Would talk to herself and imaginary people, lost interest in her home occupations and children, became noisy, talkative, restless, running about house and screaming at top of voice, paid no attention when spoken to. Husband and friends lost all control of her. Language exceedingly vulgar, profane and obscene. Tried to divest herself of her clothing. Hallucinations of hearing. Slept badly, ate very little. Recovered. He gives four other cases in which it is observed that there is nothing distinctive in the symptomatology, nothing except the out-break during the nursing period by which they could be recognised as lactational insanity, hence the term in no way designates a special form of insanity. Treatment of lactational insanity resolves itself simply into the exercise of the general principles of therapeutics. Remove sources of irritation, correct aberrant functions, restore wasted strength. These principles if consistently carried out will usually lead to success.

B. M. CAPLES.

EXTRA-CEREBRAL BRAIN REGIONS AND INSANITY.—Luys claims ("*Jour. de Med. de Paris*," July 2, 1893) that in a certain number of phrenopathic troubles, at a certain phase of their evolution, the extra-cerebral regions of the base of the brain (cerebellum, pons and medulla) are the provocative sources of the psychic disorder. The involvement of the cortical regions is but secondary phenomena. It is but the second phase of a movement started previously. These views are claimed by Luys as novel, yet their essential factor, at least so far as the medulla is concerned, underlies much modern pathology of epilepsy, paretic dementia, mania, melancholia, katatonia and stupor as enunciated by the American school of which Spitzka's work is a fair representative.

J. G. KIERNAN.

HYSTERICAL APHONIA.—Scheppegrell thinks this not an uncommon manifestation of hysteria characterized by an inability of the adductor muscles of the larynx to place the vocal bands in position for phonation. Hysterical aphonia, like other forms of hysteria, is found chiefly in young women of neurotic temperament, and cases are very rarely presented in which other manifestations of hysteria are not observed. The voice is lost, but the patient is able to communicate in a whisper. It should not be considered as a mere counterfeit on the part of the patient to excite sympathy. This is rarely the case. The prognosis in cases of aphonia is good, especially in recent cases. In long standing cases certain atrophic changes may take place in the muscles as a result of disuse, but even these cases yield to careful treatment. Treatment should consist constitutionally of arsenic, strychnine, iron, valerian, or bromides, as indicated. Ovarian or uterine disease should not be overlooked. Faradic current applied externally to the neck, electrodes applied on each side of larynx. The patient told to count, current increased at these applications. After a few attempts a sound above a whisper is heard. (*Medical News*, Sept. 16.)

B. M. CAPLES.

HYSTERICAL APHONIA WITH A PERFECT SINGING VOICE.—In *N. Y. Med Jour.* May, Dr. E. H. Griffin reports an interesting case in which a young girl upon awaking from a nap found herself unable to talk, except in a low whisper. The peculiar feature of her case was that upon being requested to sing, she could articulate well in high, low and middle tones. she could readily sing the scale, but if asked to speak it could only whisper. Examination of larynx showed cords perfectly normal as to color and approximated closely, an unusual condition in this form of aphonia. When she sounded A short and sharp in a speaking voice the false cords seemed to crowd over true cords, but when she sounded A in a singing voice the larynx presented a normal appearance. Treatment consisted of iron and strychnia, electricity to neck and moral suasion.

T. W. BISHOP.

HYSTERICAL TREMOR AND HYSTERICAL ANOREXIA.—In this article Dr. Lloyd first gives a brief account of the literature of the subject. The following is an epitome of the case that he recites: The patient was a woman of 26 years, who had a slight sunstroke. She had the grippe in 1890 and was very ill. Two months after this she was bed-ridden and paralyzed

in her legs and continued for a year when she began walking with the aid of canes. In 1891 she took some saltpetre by mistake, which caused great pain in the stomach. She got the impression that her stomach and kidneys were ruined. From this the hysterical symptoms became marked. She soon began to reject food. Later after a second attack of grippe she had aphonia. Was very weak and emaciated. She also developed a peculiar tremor. It involved all four limbs, also her neck and head. It was constant during repose, increased when noticed and on voluntary movement. While she was not a real paralytic, tremor prevented her from walking. The tremor was rhythmical but of a peculiar type, something like a person shivering with cold. The patient entirely recovered by being removed to a hospital. Hysterical tremor may be partial or general. It may also be limited to the arm or of the hemiplegic type. It may persist for years or months. It may be very slight or it may be very intense. It is increased on movement. It may persist during repose. The author says that hysterical tremor is much like that of insular sclerosis. (*Am. Jour. Med. Sci.*, Sept., 1893.)

B. M. CAPLES.

HYSTERICAL TREMOR.—Popoff reports a case of a man aged 21 who from infancy had been subject to attacks of rhythmic tremor affecting the flexors and extensors of the feet. Attacks come without apparent cause, lasting about a fortnight, terminating suddenly, followed by exhaustion. The rhythmic movements were very rapid, of slight amplitude, notably increased by emotion, attention or voluntary effort. Mechanical or myotatic irritability of the muscles generally was excessive, muscular power enfeebled. During the attacks tremor only ceased when patient was asleep. Sense of touch was impaired below level of iliac crest and Poupart's ligament. Sensibility for pain and temperature was abolished over same area. Above that point all forms of cutaneous sensibility intact. Each visual field for white greatly reduced both in attacks and intervals. Other sensory derangements persisted only as long as the tremor. Length of intermission was usually about three weeks. (*British Medical Journal*, July 8.)

B. M. CAPLES.

HYSTERICAL BRACHIAL MONOPLÉGIA.—Kinnosuke Miura. ("Arch. de Neur," May, 1893,) has studied thirty-one cases of hysterical monoplegia; twenty-three males and eight females. All had laborious occupations. Thirteen had decided nervous heredity and eight gave an obscure history.

There had been infantile urinary incontinence and convulsions in many cases, as well as alcoholism, saturnism and infectious disorders. In many cases dyschromatopsia and visual disorders were present. In nine cases trophic disorders existed.

J. K. KIERNAN.

HYSTERIA AND HYPEREMESIS GRAVIDARUM.—Dr. H. Muret reports a case which would tend to support Kaltenbach's theory that the vomiting of pregnancy is very frequently hysterical. The patient, 29 years old, was in the third month of her third pregnancy. Vomiting set in in the sixth week and resisted every remedy which was administered. The patient lost 49 pounds in seven weeks and seemed on the verge of collapse. As a last resort, before the induction of abortion, the stomach was washed out by means of the elastic tube, the fluid returning clear. Within an hour, the patient was found sitting up in bed, demanding food with a strong voice. The vomiting never returned, although the lavage was repeated once for its moral effect. The gain in weight was as rapid as the loss, 29 pounds in four weeks. She was delivered at the proper time of a rather undersized child. (*Deutsch. Med. Wochenschr.*, No. 6, 1892.)

G. J. KAUMHEIMER.

THERAPEUTICS AND HYPNOTISM.

TREATMENT OF ALCOHOLIC INEBRIETY.—Dr. Peterson says the best treatment of alcoholic inebriety of any form may be briefly summarized as follows: First: cut off all alcohol and confine to bed. Second: blue pill at night followed by saline cathartic. Third: hot wet pack for sleeplessness. Fourth: hypodermatic injection of strychnia 1-60 to 1-32 grain. Fifth: water, milk, kumyss, broth, soup, meat juice, raw eggs, arrowroot, juicy fruits and the like, when there is gastric disturbance. This is an outline, in short, of the line of treatment adapted to all cases of acute alcoholism, though bromide and choral or duboisine are indicated in a certain number of instances. In chronic alcoholism which manifests itself most commonly as a form of neurasthenia the following should be the mode of treatment: First: cut off alcohol. Second: hot wet pack for insomnia. Third: disturbances of the alimentary canal to be met by aperients and dyspeptic remedies (rhubarb and soda, hydrochloric acid and the like). The diet should be milk, eggs and vegetable foods. Fourth:

strychnia again the main agent to restore nerve tone, best given hypodermatically, but may be given by mouth in combination with quinine or in fluid extract of cinchona (1-60 gr. to dr.) or infusion of gentian. To cure the disease of inebriety the author thinks the treatment should extend over a period of from one to three years. (*Journal of American Medical Association.*)

B. M. CAPLES.

FIRST CARE AND AIDS TO THE INSANE.—Dr. D. R. Brower emphasizes the statement that the great majority of insane require special treatment in an insane hospital, but pending the delay of their removal certain temporary means of treatment and management must be adopted. As certain cases of insanity are due to auto-infection the symptoms can often be modified by intestinal disinfection. Flushing the colon with boracic acid, or sterilized water and the administration of salol, salophen, or the salicylate of bismuth may be useful. The condition of the kidneys and skin should be carefully attended to. If constipated he recommends cascara sagrada, with occasional use of calomel, three to five grains, followed by salines. He recommends warm baths, wet pack, and massage. The question of food is very important. The patient should have highly nutritious and easily digestible food. Nutritive enemata may be used, also forcible feeding if necessary. For cases of depression he does not use bromides or chloral; for insomnia he advises use of hydrobromate of hyoscine or somnal. He also recommends chloralamid and sulfonal. When others fail it may be necessary to administer chloral hydrate, its depressing effects should be carefully watched and cannabis indica or hyoscine administered with it. In the ordinary condition of exalted excitement he recommends combination of bromides and chloral, also combination of sulfonal and bromides or chloralamid and bromides. In acute insanities he calls attention to the fact that menstrual suppression is usually the result of the insanity and not the cause of it and that efforts to force its appearance are very injurious. The author also condemns the usual prescription of traveling for such patients. In the convalescent stage it may be advisable but before that it is not.—(*North American Practitioner*, June.)

CHLORIDE OF SODIUM INFUSION IN THE FASTING INSANE.—Ilberg and Lehmann each report the use of hypodermatic injections of saline solution, with marked improvement, in severe melancholias, accompanied by refusal of food. With

these cases the quality or quantity of food makes but little difference; patients gradually emaciate, secretions become foul and bowels sluggish, they grow weaker and finally die of exhaustion, notwithstanding that ample food has been ingested. After the injections, the general state of the patient was markedly improved, lips would become soft, tongue clear, and in several cases patient would begin to take food voluntarily. (*The Journal of the American Medical Association*, July.)

T. W. BISHOP.

TRIONAL AND TETRONAL IN INSANE.—Dr. Wm. Mabon, of Utica State Hospital for Insane, speaks of trional and tetronal, as follows: Both are hypnotic and sedative; trional more hypnotic and tetronal more sedative. Trional as hypnotic, gr. x-xxx, as sedative, gr. x-xv; tetronal as hypnotic, gr. v-xxx, as sedative, gr. v-x, once or twice daily. (*N. Y. Med. Journal*.)

T. W. BISHOP.

EXALGIN IN HALLUCINATION.—Dr. Morandan de Monteyel (*Bull. Gen. de Therap*, April 30,) advises the use of exalgin in hallucinated cases. It should be given in soup to avoid suspicion as to medication. Wine answers even better. By giving exalgin during meals it does not produce untoward effects. It influences hallucinations favorably when these are of reflex origin, but less than antipyrin. The non-reflex types are exaggerated by both antipyrin and exalgin.

J. G. KIERNAN.

A PAPER was read by Dr. Landon Carter Gray, of New York, entitled "What should Constitute Legal Responsibility in the Medical Sense in Insanity?" The object of the paper was to call the attention of the medical profession to the fact that great injustice is likely to be done to insane people by basing the view of their insanity upon the proposition that if a man is able to understand the nature, quality and consequences of an act, he is legally responsible for such an act. The doctor most emphatically declared that the question of legal responsibility should be determined not by laws but by facts. Medical science demonstrates the fact that a diseased condition of the brain giving rise to mental aberration permits of no half-way ground in judging of sanity. Periods of remission cannot reasonably be called "lucid intervals," as is so often done. After classifying the types of insanity

which have been demarcated up to the present time as: the moods; the presence of hallucinations: the presence of delusions; the co-existence of the neuroses; the co-existence of organic disease of the brain; tramatic causation; causation from excessive use of narcotics, and the mental disturbances occurring from derangement of the organism induced by disease of non-nervous viscera, Dr. Gray called attention to the fact that in paranoia, mania and melancholia, the reasoning powers and the memory are usually intact, yet the patient has undeniable hallucinations and delusions, and under the influence of those delusions and hallucinations commits acts for which he should not be held legally responsible. He cites the case of the paranoiac Dougherty, who imagined himself the beloved of Mary Anderson, and that the world was conspiring to keep him from her, and in pursuance of this delusion murdered Dr. Lloyd of the Flatbush Insane Asylum, and was planning to kill about a dozen public officers whom he believed to be in the conspiracy. Yet he declared himself sane and asserted that he knew the nature, quality and consequences of his act. He was properly pronounced insane, because his mania was so palpable, although some doubt prevailed in the public mind as to his insanity. The doctor concludes by saying that the only safe test of the legal and testamentary responsibility of a man lies in an answer to the simple question: Is he insane? If he is, he is not legally responsible, and this question can only be properly decided by competent physicians, not by fine-spun theories of lawyers. Common sense must be applied to such cases rather than metaphysical definitions of mental aberration.

SUGGESTION IN AGORAPHOBIA.—Dr. N. Bertillon reports (*"Jour. de Med. de Paris,"* July 2, 1893,) a case of agoraphobia in a man in which suggestion was attended by excellent results.

J. G. KIERNAN.

EDITORIAL.

THE address of Dr. J. B. Andrews as President of the American Medico-Psychological Association is an interesting one and it illustrates the progress to which he calls attention. The former generation of alienists were able men—Nichols, Ray, Earle, Bell and Brigham were men of a very high order of talent. The younger generation would hardly lay claim to having among them abler men but they certainly have the advantages of new methods, of opportunities and encouragements to research that will make the next twenty-five years, we predict, mark an epoch in American Psychiatry.

The older men blazed the way through a wilderness in giving us hospital architecture, in teaching us administrative methods, in brief in establishing the principles of institution management that will serve as the working basis of the future.

There are now, however, opportunities for scientific work in our Insane Hospitals which never existed before, and if the natural demand is answered that the Psychological physician be a scientific man in the widest sense the result will in the future be valuable.

Every public insane hospital should in some sense be a school for instruction of medical students and practitioners; each should have, as some now have, a pathological laboratory; medical students should be encouraged to become attendants, thus obtaining in many cases a knowledge of insanity that they would not otherwise get. This plan is being tried at the Milwaukee Sanitarium and so far with encouraging results.

The facts of insanity are not all in our possession yet by any means, and those that we at any time possess must be constantly re-interpreted as knowledge is gained. Rush, Morrison and others of the fathers had large experience, they were students and observers, and yet the knowledge of their

day has been completely recast and greatly added to. This knowledge, it is no disparagement to them to say, is more accurate, more systematized and is supplemented by an entirely new development of collateral branches of medicine.

There is we repeat much to be learned of the natural history of insanity. Let us not flatter ourselves that we have learned all or the half of it, for in the very nature of things it cannot be so, and even what we have learned must ultimately take its place as but a part of a much extended and better organized knowledge.

It is everywhere true, but in mental pathology it is pre-eminently true, that the significance of a fact depends upon its relations, hence the advantage of observing in the symptoms of insanity the *order* of their development, the succession and the relation in time, of events in the various types of mental dissolution. The interpretation of symptoms by the light of psychological facts and the coordination of these into systematic knowledge is what is now being done and will in the future be better done. Dr. Bancroft's investigations on the muscular attitudes of the insane illustrate this method, which is not easily formulated in words. His study, which is profound and instructive, shows with what wearisome repetition we may observe symptoms and tear our hair in seeking for an explanation to find at last that it has been at our elbow. This shows the advantage of a strictly scientific method. It is along this line that the natural history of insanity will be worked out in the future.

It is certainly strange how few medical writers show any interest for the principles or the philosophy of medical science, though there is no science more in need of philosophic treatment.

In our own specialty there are but four who have had the courage to rise above dry and dreary details and to attempt to correlate our knowledge into an intelligible system, namely: Jackson, Lewis, Mercier and Maudsley. Each of these has

made a substantial contribution to the philosophy of the specialty, but it is no disparagement to them to say that Dr. Maudsley has achieved the greatest success. Possessing a literary style rare for its beauty as for its accuracy, he possesses also a philosophic breadth that has enabled him to do what no other physician had done before him and ^{what} ~~which~~ no one will do better until new facts are discovered. No one can read a page of any of his works without being intellectually stimulated ^{by} ~~with~~ the author's large grasp of things, by which he co-ordinates into a coherent system the scattered fragments of psychological medicine.

In reading the average medical book we are generally struck with the willingness of writers to go on with a monotonous recitation of details without apparently thinking of the *why* of things. It is of course true that the generalizing faculty is a rare one, thousands observe facts to where one has the intellectual breadth to see their meaning.

Judging from medical literature, there seems to be in the medical profession a lack of the generalizing talent, or where it exists it must in most cases be early struck with blight. It is quite possible that this is due in part to methods of medical instruction. From the older methods, in which there was much of theory and less of clinical instruction, we have gone to the extreme, it would seem, of a plethora of clinical teaching. It is quite possible that teachers have erred in this matter and that students should have more didactic teaching and more of the sort too that acquaints them with the principles of their science. We believe this would have an intellectually widening effect on physicians. There would not be as now, perhaps, the wild rush for remedies to cure disease, and a little more independent and coherent thinking about symptoms and their significance.

There is a tendency among physicians to be copyists, or perhaps we should say professional machinists, hence the popularity of books with long lists of celebrated physicians' prescriptions. We cannot think that this is conducive to independent thinking and to sturdy professional character.

A noted physician once said to the writer that he would not "give a snap" for anything he had ever learned from a book. He, of course, spoke generally, not intending that he should be taken literally. Certain it is, however, that most men who have attained to eminence have had perhaps less help from medical literature than from what their experience has taught them. They have done their own thinking and their own generalizing, not being content to be mere copyists. This is one reason, if not the chief reason why they have risen above their fellows.

DR. H. J. BERKLEY, of the John Hopkins Hospital, has made in the last annual report of that institution an interesting contribution to the history of the cerebellar cortex of the dog. An abstract of the article would do it injustice. Those interested in the subject should obtain the essay from the author.

Modern investigations into the histology and functions of the cerebellum furnish some confirmation of the old theory that the cerebellum is closely connected with intellection. Its numerous fibre connections with all parts of the cerebrum, and especially with the frontal lobe, and its partial atrophy when one cerebral hemisphere is arrested in growth, all point to a close interdependence. Its fiber tracts, connecting it with the temporal and occipital lobes indicate further its close relationship with important sensory centers that are in large part the foundation of mentality, is significant. Again the indications furnished by histological structure that it is probably sensory in function is another evidence that it stands in close relation to mental function, for the mental functions are built upon sensations of various orders.

Dr. Berkley's investigations lead him to conclude that the cerebellum is a sensory organ. He remarks that the cells of Perkinje bear a closer likeness to those of Clark's column than any other bodies in the nervous system. He makes the interesting observation that the disturbance of equilibrium due to disease of the middle lobe of the cerebellum may be

due to an interruption of the functions of the entire organ by breaking up the fibres that cross here from every part. It is probable that an involvement of the cortex of the middle lobe would be symptomless. The doctor's investigations are very interesting and reflect great credit upon his skill.

THROUGH the courtesy of Maj. J. W. Powell, of the U. S. Geological Survey, we have received a copy of the Eleventh Annual Report of his department.

The first volume is chiefly devoted to the pleistocene history of northeastern Iowa by J. W. Magee. This of course treats of late geological conditions and shows in a very striking way some of the last preparations nature made for the advent of that ambitious animal, man.

The last chapter is by A. J. Phinney and relates to the natural gas fields of Indiana. It is an interesting and valuable contribution.

The most immediate practical part of the report is by Maj. Powell on the irrigation survey of the western arid region. Excellent colored maps accompany his report showing the extent of the arid region and the amount of land irrigation has already reclaimed. This reclamation of the desert is being done so quietly that few have any appreciation of how rapidly this American Sahara is being converted into fertile land. The writer saw not long ago at Humboldt, on the Central Pacific R. R. beautiful lawns, gardens and also trees 100 feet high all grown by irrigation, where in 1870 he found nothing but a barren waste of alkali soil and sage brush. Thus step by step is man by the aid of science conquering obstacles in nature and extending the region of the habitable earth, not only by discovery but by transformation. After an electric railroad across Behring Sea has become an accomplished fact, and other feats alike now difficult, have become easy, man may turn his attention to reclaiming the Polar regions by diverting warm ocean currents such as those that now run in wasteful streams and eddies in the Indian

ocean and the channel of Mozambique, and turn them into the northern ice fields. The tropical forests and vegetation that once grew there may again become a reality and commerce flourish where Franklin and Long died.

We are always glad to see these geological reports, they are chapters in the history of the earth's making that are among the most entertaining and instructive records. By the reconstructions of geological science we can in imagination stand by and see the work of these ages of land formation, spreading from the borders of previous continents, rising as islands from the inland seas, built up from the ocean depths by the deposit of that minute sea life that is everywhere falling like flakes in a perpetual snow storm upon the sea bottom, thus we observe the working of the silent and orderly forces that wrought the earth to its present shape.

No romance ever conceived, no history of man's doings ever recorded, exceed in fascinating interest the story of which the geological ages are the chapters. There is no class of men who are doing more for the final intellectual and material progress of man than those who are engaged in this work.

DR. GEO. M. GOULD'S article on "The Spelling of Some Medical Words" should be ^dwisely read. Its logic is irresistible and the doctor's courageous way of stating his opinions makes it attractive reading. Of all the manifold idiocies of the English speaking race the one supreme idiocy is their idiotic orthography.

As Prof. Lounsbury says there is nothing more contemptible than our spelling unless it be the reasons given for continuing it.

Prof. March as quoted by Dr. Gould says we pay \$15,000,000 annually to teachers for addling our children's brains with bad spelling, and at least \$100,000,000 more to publishers for putting silent letters in our books. This is paying a large sum for orthographic rubbish. This kind of spelling belongs to a dead past when men were elaborate and tedious

in their manners, indolent and inaccurate in their mental possessions, when they insisted on saying *you-youing* in place of *you*, thinking they thereby magnified the importance of the person addressed. In such a period silent letters, diphthongs and other orthographic deformities were in congenial company along with powdered wigs and ancestral coat-tails that dragged the ground, but in this age of precision and time-economy such spelling is intolerable. There is no reason for the dull conservatism which keeps us staggering along under this load of extra letters in our words that are neither ornamental nor useful. A healthy conservatism is a good thing, it saves what is good in the past in order that we may rise to better things; but that conservatism that rules in our orthography is not a whit less barbaric than that which prizes painted cheeks and pierced noses. In Dr. Gould's words, "Let us be sensible instead of conservative."

WE have received from Dr. W. T. Harris, Commissioner of Education, his report for 1889 and 1890. The first volume is taken up with the status of the foreign educational systems, Scotland, Prussia, Austro-Hungaria, Demark and others. The second volume is taken up with educational reports of home institutions, colleges, universities, common schools, etc. In addition to the regular report, the circulars of information are very interesting. One on "Southern Women in the Recent Educational Movement in the South," by Rev. A. D. Mayo, is very interesting; another one is on "Benjamin Franklin and the University of Pennsylvania," by Thorpe; another is quite a volume on Short-Hand Instruction and Practice; one by Arthur McDonald on "Abnormal Man," being "Essays on Education and Crime and Related Subjects," is a valuable volume. We will review this in the future.

Dr. Harris' selection as Commissioner of Education was a most fortunate one and we sincerely hope that he will not fall a victim to the political headsman. His career in St. Louis

showed him to be one of the ablest educators of the country and the literary world has long known him as a man of rare talent, as a philosopher and a writer on many profound subjects. We predict for him a very useful career in his present position.

ASYLUM AND HOSPITAL REPORTS.

Report of the Board of Trustees of the Eastern Michigan Asylum for the Biennial Period ending June 30, 1892.—Dr. Burr's report shows that there were 893 patients remaining in the institution June 30, 1892. The number reported as recovered is forty-eight. Concerning this small percentage, Dr. Burr makes the very frank and honorable statement that this small percentage indicates at least the scrupulousness and care exercised in the statistical work of this asylum. "The time has gone by," he very properly says, "when the efficiency of the work of an asylum is to be measured by its recovery rate." Of the patients admitted, more than one in five had been under treatment in the asylum, and of those re-admitted, over 40 % had been previously discharged as recovered. This shows that the term recovered when applied to the insane has heretofore been very indefinite. The doctor remarks that statistics of re-admissions should be kept in every asylum, and only by so doing are the records of recoveries to be made of any value. An interesting feature of this report is the section devoted to pathological notes. It indicates that the medical conduct of the institution is in scientific hands. Another interesting section is that of surgical work in the institution in which a number of interesting cases are reported. The remarks of the doctor on restriction of insanity and marriage among the insane are extremely interesting. Concerning the feeding of the insane, the doctor observes that there is much danger of over-feeding the acute insane who refuse food, the digestive and assimilative power being diminished when the secretion is and the ability of the patient to dispose of food is very limited. The physician should be careful to give small amounts, but at frequent intervals in such cases, rather than to feed them forcibly at longer intervals and larger amounts. The training school for attendants in this institution seems to be very successful and surely the subjects of instruction by the physicians include a very thorough plan. The great fire which occurred in Decem-

ber, '91, was a serious misfortune, but the institution seems to have recovered itself and is doing excellent work. Dr. Burr's report is a model.

PROGRESS IN THE CARE AND HANDLING OF THE INSANE
IN THE LAST TWENTY YEARS.

Report of the Committee on the History of the Treatment of the Insane, by C. Eugene Riggs, A. M., M. D., Chairman.—Committee: C. Eugene Riggs, M. D., St. Paul, Minn.; Richard Dewey, M. D., Chicago, Ill.; Hon. W. P. Letchworth, Buffalo, N. Y.; H. P. Stearns, M. D., Hartford, Conn.; Joseph G. Rogers, M. D., Logansport, Ind.; C. B. Burr, M. D., Pontiac, Mich.; W. W. Goddard, M. D., Washington, D. C.; A. D. Richardson, M. D., Columbus, Ohio; Alice Bennett, M. D., Norristown, Penn. This report of the committee of the National Association of Charities and Correction was prepared by Dr. C. Eugene Riggs of St. Paul. It is a full and clear statement of the present methods of care of the insane and the progress during the last twenty years. It is the best statement of the subject that we have seen and is worthy of a place in every medical library.

NOTES AND COMMENTS.

THE MATERIAL DIRECTION OF NEUROLOGY.—In this article Dr. Jones treats of the recent tendency of neurology with its careful observation of facts and its accurate and painstaking methods as distinguishing it from the practices of the early specialists whose work was less accurate and whose writings are more vague and speculative. An interesting part of the essay is a letter written by the author to Dr. Landon Carter Gray concerning Goltz' account of decerebration of dogs. Dr. Gray takes occasion to state, and we think properly, that Goltz' experiments are essentially failures. If his experiments have done any thing they have confirmed all that Ferrier and his opponents claimed. The article concludes with the report of a number of interesting cases that have come under the doctor's treatment. (*Medical Herald*, June, 1893.)

WE are glad to note that P. Blakiston & Co. announce a new Dictionary of Medicine, Biology and Collateral Sciences by Dr. Geo. M. Gould. The Doctor and a corps of assistants have been at work on this dictionary for some years.

This is not a new edition of Dr. Gould's small dictionary, but a new work, more elaborate in every way. The latest methods of spelling have been adopted, thanks to Dr. Gould's progressive spirit and it promises to rid our orthography of much rubbish. The happy plan he has adopted of tabulating wherever it can be done is commendable, it condenses, simplifies, saves time and vexation of spirit. This promises to be one of the most valuable single volume medical dictionaries ever published.

DUNGLISON'S MEDICAL DICTIONARY.—A new edition is announced for early publication. It has been thoroughly revised and greatly enlarged, and will contain about 44,000 new medical words and phrases. Pronunciation has been introduced into the new edition by means of a simple phonetic spelling. This work has always been noted for the fulness of its definitions, ample explanations being its distinguishing characteristic. In the new editions much encyclopedic information, difficult of access elsewhere, will be found conveniently at hand. Especial attention has been devoted to matters of practical value.

A CONFLICT BETWEEN PSYCHIATRISTS AND THEOLOGIAN IN GERMANY.—A small though influential party of Protestant pastors in Germany is endeavoring to create a public sentiment favorable to the substitution of theologians for physicians in the management of institutions for the insane. They are encouraged in this reactionary step by the success of several colonies for epileptics and chronic insane organized by several of their number. The Society of German Alienists, at its last meeting, unanimously adopted resolutions which point out the injustice of such a step and its dangers to the insane, to the state and to scientific medicine. Another clique closely related to the former, is agitating for trial by jury for the insane in Germany and uses all the sensational and exaggerated arguments usually employed by sentimentalists when agitating against the medical profession. The resolutions previously alluded to also contain a refutation of these arguments. The Society of German Alienists takes a firm stand against these reactionary propositions.

DR. ERNST SEMERLING, well known as assistant at the Berlin Psychiatric Clinic under Westphal and Jolly, has accepted a call as Professor of Psychiatry and Director of the Psychiatric Clinic recently founded at Tübingen.

PROFESSOR ERB has declined the call entended to him to succeed Kahler at the Second Medical Clinic in Vienna and will remain at Heidelberg.

PROFESSOR V. KRAFFT-EBING has been given charge of the Psychiatric Clinic at Vienna formerly under Meynert's charge.

DR. KJELLBERG, Professor of Psychiatry at the University of Upsala, Sweden, died on July 2d.

BOOK REVIEWS.

ABNORMAL MAN, BEING ESSAYS ON EDUCATION AND CRIME AND RELATED SUBJECTS, WITH DIGESTS OF LITERATURE AND A BIBLIOGRAPHY. by Arthur MacDonald, Specialist in the Bureau of Education, Washington, Government Printing Office, 1893.

This work is a collection of studies in social pathology and an attempt to deduce a remedy for the evils found. The essays are necessarily brief, but are of extreme interest to all interested in the delinquent, defective and dependent classes, as well as in the general organization of the social body. The work of the alienist brings him closer to these abnormal classes of beings than the great body of the profession and a great deal of the necessary work along the lines laid down in these essays must be done by him. After a short introduction, chapters on criminology, criminal sociology, alcoholism, insanity and genius and a short abstract of the proceedings of the twenty-first meeting of the National Prison Association follow. To each of these chapters a short digest of the most important literature is appended, care being taken to represent all shades of opinion. Chapter VI. contains a resume of recent sociological, ethical and charitological literature. A voluminous bibliography of over 7,000 titles closes this work, which is well deserving of serious study by all students of social science. It is to be hoped that the author will soon be able to present the results of further investigations on these subjects.

MINERAL SPRINGS AND HEALTH RESORTS OF CALIFORNIA, WITH A COMPLETE CHEMICAL ANALYSIS OF EVERY IMPORTANT MINERAL SPRING IN THE WORLD. ILLUSTRATED. A PRIZE ESSAY, ETC., by Winslow Anderson, M. D., M. R. C. P., etc., San Francisco, The Bancroft Co., 1892.

This work is a systematic and painstaking description of every mineral spring and bath in the State of California.

Copious analyses of these, many of them by the author, as well as of all important springs throughout the world are given. It is thoroughly scientific in tone. It begins with some general considerations of the use of baths and mineral waters and then considers, seriatim, all those found in the author's state. The popularization of balneological methods in this country hitherto has been too commercial in tone and without the wise control of the scientific physician. Dr. Anderson tries to give the indications for the use of each spring without falling into the error of the ordinary hotel-keeper, of making each spring remedial for the entire index of diseases. A large number of views of California scenery illustrates the work, which is evidently the result of many years of earnest scientific labor. It is to be hoped that other medical men will follow the author's example and furnish us with strictly scientific accounts of the mineral springs to be found in their respective states. Only by such work will American Balneology reach the professional level of that of Europe. No fault can be found with the mechanical features of the work.

G. J. KAUMHEIMER.

PAMPHLETS AND REPRINTS.

The Treatment of Alcoholic Inebriety.—By Frederick Peterson, M. D.

Twelfth Annual Announcement of the College of Physicians and Surgeons of Chicago.

Renal Neoplasms, with Report of two Cases of Nephrectomy.—By William Mackie, A. M., M. D.

The Epileptic Interval; its Phenomena and their Importance as a Guide to Treatment.—By William Browning, Ph. B., M. D.

Clinical Report of a Case of Temporal Hemianopsia, with Recovery, followed by Right Lateral Hemianopsia, Ophthalmoplegia and Partial Recovery.—By H. V. Würdemann, M. D., and J. S. Barnes, M. D.

The Treatment of Chronic Suppuration in the Middle Ear by Removal of the Carious Ossicles, Necrosed Bone and other Obstructions in the Tympanum. with Nine Illustrations.—By H. V. Würdemann, M. D.

Twenty-seven Years Addiction to Opium; Recovery; Relapse.—By J. B. Mattison, M. D.

Trional, the New Hypnotic. Its Use in Narcotic Habitués.—By J. B. Mattison, M. D.

Cocaine Poisoning.—By J. B. Mattison, M. D.

The Etiology of Narcotic Inebriety.—By J. B. Mattison, M. D.

Cocaine Inebriety.—By J. B. Mattison, M. D.

The Mattison Method in Morphinism.—By J. B. Mattison, M. D.

Fourteenth Report of the State Board of Health of Wisconsin.

Hysteria in Orthopedic Surgery.—By Stanton Allen, M. D.

Hygiene.—The Science.—By E. A. Guilbert, M. D.

Sociality in the Profession.—By E. A. Guilbert, M. D.

Some Further Remarks on Elastic Constriction as a Haemostatic Measure.—By N. Senn, M. D.

NEW GERMAN BOOKS.

KRAFFT-EBING. *Eine Experimentelle Studie a. d. Gebiete des Hypnotismus, etc.* Stuttgart. Ferd. Enke.

HIRT. *Lehrbuch d. Elektrodiagnostik u. Elektrotherapie.* Stuttgart. Ferd. Enke.

WICHMANN. *Die Werthe d. Symptome d. sogenannten traumatischen Neurose.* Braunschweig. Vieweg u. Sohn.

MARCHAND. *Arbeiten a. d. pathologischen Institute zu Marburg*, contains a number of neuropathological articles. Jena. Gustav Fischer.

VIERORDT. *Anatomische, Physiologische, u. Physicallische Tabellen u. Daten z. Gebrauche für Mediciner.* Jena. Gustav Fischer.

ZIEHEN. *Leitfaden d. Physiologischen Psychologie in 15 Vorlesungen.* Second Edition. Jena. Gustav Fischer.

BENEDIKT, M. *Ueber Neuralgien u. neuralgische Affectionen u. deren Behandlung.* Klinische Zeit u. Streitfragen, Band VI, Heft 3. Wien. W. Braumüller.

WICHMANN. *Die Heilwirkung der Elektricität bei Nervenkrankheiten.* Klinische Zeit u. Streitfragen, Band VI, Heft 4. Wien. W. Braumüller.

SCHMIDKUNZ. *Der Hypnotismus in gemeinfasslicher Darstellung.* Stuttgart. A. Zimmer.

ALT u. SCHMIDT. *Taschenbuch d. Elcctrodiagnostik u. Electrotherapie.* Halle. Wilhelm Knapp.

MINNICH. *Zur Kenntniss d. i. Verlaufe d. Perniciösen Anämie beobachteten Spinalerkrankungen.* Berlin. A. Hirschwald.

GOLDSCHIEDER, *Diagnostik d. Nervenkrankheiten.* Berlin. Fischer's Medic. Buchhandlung. H. Kornfeld.

LENHOSSEK. *Der feinere Bau d. Nervensystems im Lichte neuester Forschungen.* Berlin. Fischer's Medic. Buchhandlung. H. Kornfeld.

WERNICKE. *Gesammelte Aufsätze u. kritische Referate zur Pathologie d. Nervensystems.* Berlin. Fischer's Medic. Buchhandlung. H. Kornfeld.

PIPER. *Schriftproben von Schwachsinnigen, resp. Idiotischen Kindern.* Berlin. Fischer's Medic. Buchhandlung. H. Kornfeld.

REHFISCH. *Der Selbstmord,* with a preface by MENDEL. Berlin. Fischer's Medic. Buchhandlung. H. Kornfeld.

GOWERS. *Syphilis and Nervensystem. Autorisirte Uebersetzung von E. LEHFELDT.* Berlin. S. Karger.

MAGNAN-MOEBIUS. *Psychiatrische Vorlesungen.* Heft IV-V. Leipzig. Geo. Thieme.

LOOS, J. *Die Tetanie d. Kinder u. ihre Beziehungen zum Laryngospasmus.* Leipzig. J. B. Hirschfeld.

KREIDMANN. *Der Nervenkreislauf.* I Theil. Hamburg. Pontt u. v. Döhren.

SACHS, *Vorträge über Bau und Thätigkeit des Grosshirns.* Breslau, Preuss u. Jünger.

MEYERSHAUSEN. *Polychrome Wandtafeln f. d. electro-therapeutischen Unterricht.* Berlin. Fischer's Medic. Buchhandlung. H. Kornfeld.

SCHOLZ. *Lehrbuch d. Irrenheilkunde.* Leipzig. E. H. Mayer.

Zeitschrift für Hypnotismus, redigirt von J. GROSSMAN. Berlin. H. Brieger.

JASTROWITZ. *Ueber d. Behandlung d. Schlaflosigkeit.* Leipzig. G. Thieme.

LEYDEN und JASTROWITZ. *Beiträge zur Lehre v. d. Localisation im Gehirn u. ü. deren pract. Verwerthung.* Leipzig. G. Thieme.

MUELLER, C. F. *Handbuch der Neurasthenie.* By a number of German Neurologists. Leipzig. F. C. W. Vogel.

HEIBERG, J. *Schema d. Wirkungen d. Hirnnerven.* Wiesbaden. J. F. Bergmann.

MOLL, A. *Die conträre Sexualempfindung.* Zweite Auflage. Berlin. Fischer's Medic. Buchhandlung.

THE REVIEW

OF

INSANITY AND NERVOUS DISEASE

A QUARTERLY COMPENDIUM OF THE CURRENT LITERATURE
OF NEUROLOGY AND PSYCHIATRY.

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THE REVIEW OF INSANITY AND NERVOUS DISEASE.

FOR DECEMBER, 1893.

INSANITY IN ITS RELATIONSHIP TO LIFE INSURANCE.

BY FRANK PARSONS NORBURY, M.D., JACKSONVILLE, ILL.

[LATE ASSISTANT PHYSICIAN ILLINOIS CENTRAL HOSPITAL FOR THE INSANE.
FORMERLY RESIDENT PHYSICIAN PENNSYLVANIA INSTITUTION FOR FEEBLE
MINDED. LECTURER ON NERVOUS AND MENTAL DISEASES, KEOKUK
MEDICAL COLLEGE, KEOKUK, IOWA.

The duties of an examiner for a life insurance company are peculiarly delicate and important, requiring an exercise of position directly opposite to that which he professionally occupies in his relationship to his patients. "In the latter case the patient exposes his infirmities, and even intensifies them; the applicant for life insurance, on the other hand, may desire to lessen their importance or conceal their existence." The medical examiner is, therefore, a dual guardian; first, caring for the interests of the company by whom he is employed; second, watching the interests of the applicant.

Hurried or superficial examination jeopardizes, and causes unjust discrimination, destined to impair the efficiency and usefulness of the one, and compromising the welfare of the other. In justice to both, it is important that the examina-

tion be thorough, scientific and exacting. The detail for an examination, as ordinarily required by leading companies, embraces such as is included in regular medical diagnosis, following in the line of recent methods, outlined by such authorities as Da Costa, Loomis or Vierordt. A glance at the medical examiner's part in the contract of a life insurance policy will reveal his importance and emphasize the necessity of thoroughness in the routine of ordinary medical diagnosis, upon which rests the value of the risk assumed by the company. Such ordinary examination is sufficient in the greater majority of cases to enable discrimination to be made as to the value of the risk, but it is nevertheless true that even in such cases special inquiry into special disease will oftentimes reverse the standing of the case, and revert it to the rank of questionable risks. Hence, the importance of thoroughness in all risks, covering diseases more or less dormant, quiescent or seemingly of little consequence.

There is no class of diseases deserving of such special inquiry, more important alike to the company and the applicant, than nervous and mental diseases. For from their very nature they are elusive and require patience to elicit symptoms leading up to a matured diagnosis.

As Walton says. "Opportunities are frequently offered for brilliant and rapid diagnosis, but these opportunities constitute, however, but a small proportion of the sum total" of cases coming under observation. The examination, as required by the company, is so superficial, that oftentimes, and covered by one question, are embraced other diseases, all of equal importance, but treated as if they were mere passing inquiries needed to fill up space, supers as it were, when in reality they oftentimes assume leading roles, and play their parts with a vehemence surprising to all concerned. As instance, I have observed among the causes of death of policy holders, but a few months insured, general paralysis of the insane, other forms of organic brain disease, such as syphilitic brain disease, insanity following traumatism received

before the policy was taken out, etc., and insanity following the morphine habit. As instances receiving benefits from fraternal societies, I have noted insanity, spinal cord disease, etc., all cases occurring within a comparative short time after being admitted into fellowship.

It is well for these individuals that they had such loyal brothers, but as such organizations are supposed to discriminate in favor of sound, healthy men, it is but another evidence of the laxity of examinations, and where minor parts sooner or later become title roles. The medical examiner is not altogether to blame for his oversight in mental diseases, for his instruction regarding the subject of insanity is at fault.

But little if any attention was ever paid to instruction in insanity by medical colleges until recent years, and even now it is not required in many colleges as fitness for graduation. Andrews, the efficient superintendent of the Buffalo State Hospital for Insane, and president of the New York State Medical Association, in his annual address, says: "Many students never heard the disease (insanity) mentioned by instructors or found it treated of, in any intelligent way, in text-books of practice. The value of this knowledge," says he, "to the general practitioner can hardly be overestimated. He is called upon to make the diagnosis and to express his opinion as to the needs of his patients suffering from mental disturbance. Without instruction he is helpless and proves but a broken reed to the family, when he should be the firm support." I would add that he is not a fit person to take upon himself the responsibility of life insurance examination in the minority of cases, demanding as they do, special inquiry into the mental state of an individual.

Is it to be wondered at that an individual, the victim of general paralysis, who in the earlier stages of the disease decides to take life insurance, should successfully pass an examination and within a year or two die in an insane hospital? Or that syphilitic brain disease be mistaken for one of its symptoms, viz., impaired vision, treated accordingly and then

recommended as a good risk, and within a year be confined in an insane hospital, hopelessly insane? It is evident, therefore, that insanity to be recognized must be studied. Again inquiry into the hereditary factor, which is given, apparently, a prominent place in an insurance examination, is so grossly superficial in its bearings upon insanity and nervous disturbances, as to bar it out of real prominence and value in the assumption of a risk.

Many of the questions pertaining thereto are capable of being evasively answered, and as a consequence no serious value can be attached to the answers returned. All who have had experience in the treatment of insanity know how difficult it is to get the correct family history necessary for a proper record of the cases under treatment. How that, when the friends or relatives of the patient are confronted with marked evidences of hereditary degeneracy, they deny such a possibility as hereditary influences in the case.

In life insurance examination where such evidences are not noticed, how often are such answers taken as "law and gospel," and in the haste to get through, the risk is recorded as good.

I have no statistics at my command, showing how many insured die of mental disease, for these valuable statistics are locked in the sacred confines of the companies' offices, and the contribution which could be made to the study of heredity, by such statistics, thereby lost to the scientific world. My experience, however, justifies me in saying, that a painstaking research would show it is beyond our expectation, and that the companies would find it to their financial interest to insist upon a thorough examination into the special nervous and mental make-up of all applicants. So much in favor of the companies. Now the applicant has interests equally if not more important.

He it is, looking out for the welfare of his loved ones, turns to life insurance as a means to "keep the wolf from the door," should he be taken away. As the bread-winner of the

household, he is in duty bound and compelled by all the ties of love to take life insurance if he can. The medical examination is the gateway to this desired end, and it therefore means much to the applicant. In the examination pertaining to mental and nervous diseases we are confronted with a problem of great importance to the applicant, if perchance we find in his antecedent history the existence of insanity or other grave neuroses. We must not infer that because such history exists, the patient is a bad risk, but let us closely scrutinize this history, elicit in detail the appearance, form and result of such neuroses; find if there are inherent degenerate tendencies manifested in the applicant or his nearest of kin; take a broad survey of conditions out of which must grow mental disease, and then form our opinion. The law of heredity, we must remember, is the tendency of species to revert to the normal type. The elimination of false quantities may have ended before our applicant came on the scene, and he be on the ascending plane of development and therefore not a questionable risk.

Again presuming the applicant had been insane, are we to infer that he is not insurable? Not necessarily so, for there are forms of insanity as much a recoverable disease as typhoid fever and other self-limited and grave diseases. The brain stands upon an equal footing with the other organs of the body, so far as it can be diseased and recover its stability, without being diseased again.

The records of insane hospitals show this plainly and therefore when there are no predisposing inherent conditions, no acquired diathetic tendencies, which will render the risk questionable, it is not justifiable to reject a risk simply because of having passed through an attack of mental disease. I am aware that it will require probably special inquiry to ascertain the status of the case. Even so, I say, the individual is entitled to it and should have it. Many men, capable, honest and deserving, possessing such a history, are rejected, and with great injustice, because of the lack of thoroughness in the examination.

Once insane is not always insane. An individual once rejected by an insurance company carries the brand with him and is ever afterwards barred out from having his wrongs righted; his wrongs occasioned by the laxity of examination will be the scarlet letter to warn other companies of his infirmities which, indeed, are not infirmities but misfortunes. You all know of such cases.

Insanity, therefore, from this standpoint has a relationship to life insurance which is deserving of more than a passing inquiry, and demands justice at least from the hands of the examiner.

Another important question, which is ever before life insurance companies, is that of suicide, which is preëminently to be considered in its relationship to life insurance. Some companies take the stand that suicide is an evidence of insanity and do not make it a condition in the contract; on the other hand many companies, and particularly those of smaller calibre, say that suicide, *sane or insane*, renders the policy void and the company thereby escapes payment.

Suicide, sane or insane, seems to us fallacious and unscientific; suicide means insanity, and if a person dies by his own hand his mind is diseased; if diseased, his policy should be paid.

Suicide is considered by these companies superficially and not as Morselli has pointed out, as a working scientific law and part of the evolution of civilized people. Nature grants to the weak but a small part of the rights which are said to be conceded to all living beings. She protects the strong, the skillful, the subtle, whilst she leaves the badly formed, the anomalous, the poor in force and skill to fall victims in the struggle. This inequality, the co-existence of the conquered and conquerors, which to all appearances is scientific negation of some Utopian form of socialism, based upon the complete inequality of men, shows that a continued elimination takes place of inferior organisms and of weak characters from the bosom of human society.

The weapon of which man makes use in his struggle is the brain, and the first evidences of defeat are felt upon this organ, which fails, its faculties succumbing by disease brought on by this mighty struggle. Insanity is but the natural termination of the means nature uses to remove defects of species. The defeat is final, and suicide, dependent as it is on natural causes, is but the means toward an end of preservation of the normal type.

Suicide is then an evidence of disease, and as such is as much entitled to consideration from the hands of an insurance company as death from any other natural cause. We cannot help but regard the companies as failing in their comprehension of disease in declaring a policy void, when death occurs from suicide. An analytical study of suicide would show that it is scientifically an evidence of disease.

DELIRIUM GRAVE,

WITH A CASE.

BY HORACE MANCHESTER BROWN, M. D.

CONSULTING SURGEON TO THE HOSPITAL FOR CHRONIC INSANE, MILWAUKEE,
WIS. LATE SURGEON TO THE MILWAUKEE HOSPITAL, ETC., ETC.

NOMENCLATURE—Mania Gravis, Delirium Grave, Typhomania, Phrenitis, Acute Delirium, Hyperphrenie, Bell's Mania, Brain Fever, Meningitis from over study or mental strain.

DEFINITION—"An acute delirium, running a rapidly fatal course with slight fever, and in which, post mortem, no lesions are found of sufficient gravity to account for the disease." (Osler.)

HISTORY.—Delirium Grave was first described as a separate and distinct entity by Dr. Luther V. Bell, of Boston, in a paper read at the meeting of the Association of Superintendents of American Asylums, in the year 1849.

The large number of cases of “a form of disease apparently intermediate between mania and typhoid fever” occurring among newly arrived immigrants at Blackwell’s Island in the year 1850, led Dr. W. H. Ranney to call the attention of the same society to the disease. It is evident, however, from the paper, that Ranney did not consider it a special and distinct form of disease, but rather as an unusual complication of typhoid, or of typhus.

In 1851 Dr. A. V. Williams described the disease, and first gave it the name of “typhomania,” from the striking typhoid character of its latter symptoms, and the treatment required for its cure. Since that time the investigations of Bell, Jackson, Ball, Ranney, Williams, Westphal, Hammond, Spitzka, Stearns and others in this country who have written on the subject, have established the condition as a distinct entity, and much has been done to clear up the causation, but there remains much in the way of investigation into the morbid anatomy of the disease yet to be accomplished.

The literature of the subject is not extensive, the following list being a pretty complete resumé of the authorities, not otherwise specified in this paper, who have described the disease or its prominent characteristics, while it is often referred to in connection with other states of delirium for comparative purposes, by a number of authors:

Williams (A. V. H.) On Typhomania. Am. J. of Insanity. Utica, 1851–2, VIII–145 et seq.

Jensen. On Delirium Acutum. Hosp. Medd. Kjobenh. 1852, V., 67 et seq.

Judee. Du Delire Aigu, Paris, 1859.

Von dem Busch. Allg. Zeitsch. für Psychiatrie. Berlin, 1854. IX, 615.

Am. Jour. of Insanity. 1864–65. XXI, 181–200.

Thulie. Etude sur le delire aigu sans lesions. Paris, 1865.

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On Saturday, the 30th of September, 1893, I was called to see a young man about 24 years of age, who gave the following history: He had not been feeling quite himself for three or four days, complained of considerable headache confined to the anterior portion of the head, and a slight pain in the epigastric region. When I saw him, he was lying in bed, covered with a most profuse perspiration, an anxious look on his face, his pulse running 84, his temperature 100.8° , his pupils somewhat dilated, his face pale, and eyes sunken, and a strong odor in his perspiration; his respiration was about 24, irregular and from time to time sighing; he complained that he was unable to breathe and that his throat "shut up on him;" that he had not slept well the night before, and that it was impossible for him to swallow food or drink. I tested the latter matter and found that when no attention was paid to him he was both able to breathe regularly and deeply, without any sighing or apparent dyspnœa, and that he could also swallow liquids. An examination of the thorax revealed nothing in any way abnormal. An examination of the abdomen showed the large intestine to be overloaded with fecal matter, and in answer to my question he informed me that his bowels had not moved for six days. Looking upon the case as one of simple intestinal mycosis, I gave him one grain of calomel with sugar, told him to take it at ten o'clock at night, and ordered a saline powder to be taken the following morning.

The next morning, Sunday, I again called to see the man and found him without temperature, and his skin normal. I was informed that he had been somewhat restless, his bowels having moved seven or eight times during the night. He had passed a normal amount of urine, which was free from albumen, and his only complaint had been that he was unable to swallow or breathe. Again I noticed that he was only troubled with dyspnœa and dysphagia at times when attention was directed toward him; but fearing that there might be some obstruction behind the œsophagus or at the lower portion of the trachea, I examined his chest again very care-

fully for fear there might possibly be an aneurism of the arch of the aorta, or a post-pharyngeal abscess, but found nothing to confirm such an opinion.

I prescribed a placebo and left the city, expecting to find him perfectly recovered on my return.

On Monday, forty-eight hours after my first visit to him, I was informed that he had been delirious all the previous night, that two physicians had been called to see him, and that he was probably dying.

I went to the house and found the man plainly *in articulo mortis*, the pulse not to be found at the wrist, the skin torn and lacerated about his arms and hands, the anterior surface of the chest scratched, lacerated and bleeding, the eyes wild in appearance, the pupils extremely dilated, the tongue hanging out of the mouth, the lips blue, and a condition of general cyanosis existing.

I learned from the friends that the patient had remained about in the condition in which I had left him on Sunday morning, and until about five o'clock in the afternoon of that day nothing was noticed in regard to him which was unusual.

About five o'clock the young woman to whom the patient was engaged to be married, called on him, and he greeted her with a peculiar warmth and expressions of admiration, which were unusual for him. He, however, quieted down after a short interval, and until ten o'clock that night remained in an apparently normal state.

At ten o'clock he began to be out of his head, and his delirium rapidly assumed a wildly raving type. He had repeated the same expressions continuously, and his movements became mechanical and repeated. His tongue became swollen, and he endeavored to spit out the thick, ropy mucus with which the mouth seemed to be always too full. He had called for water, and drank it, although with an effort, and made frequent motions as though to rub the front of the throat and larynx, as if there was an obstruction to the respiration. There had been great tremulousness of the tongue, deep injection of the conjunctivæ, and a peculiar glassy appearance of the cornea. He was constantly throwing himself about, striking his head against the head-board and his arms and feet against the side of the bed, quite regardless of any pain or any injury he was doing to himself. The hands and feet were cold and a clammy perspiration bathed the brow, cheeks and body; his enunciation was extremely difficult, and he grasped at his throat with his hands as if there was some obstructing body in the larynx. When endeavoring to speak, his language was entirely irrele-

vant, and words followed each other at times without any relation whatsoever existing between them.

I informed the brother of the man that he was about to die and suggested to Dr. Clark, who saw him with me, that we give him a few whiffs of chloroform that he might be restrained from doing himself further injury, to which suggestion Dr. Clark agreed, and I placed the chloroform mask over the patient's face, dropped a few drops of chloroform on the cloth, the man breathed perhaps twice and expired.

The question was of course as to diagnosis. Dr. Purtell who saw the man in the morning, early on the day he died, was of the opinion that it was a case of hydrophobia. Dr. Clark, who saw the man at about 9 o'clock and again a little after 10, was of the same opinion.

When I saw the man and his actions during his last few moments I myself was impressed with the belief that it must be a case of hydrophobia. I had never seen a case of hydrophobia, but the man's general appearance was so much that of a person suffering from that disease, that although there was no history of any dog bite within any rememberable time before the beginning of the illness, I was nevertheless inclined to believe that there might have been some storage of hydrophobic infection showing itself at a later date than usual.

According to Whittaker (*Am. Text Book of Prac. Med.*) the period of incubation of hydrophobia may be as long as two years; it having been shown that the period of incubation in 60% of cases is from eighteen to sixty days, in 34% a little more than two months, and in some cases six months to two years.

So that there might have been a forgotten infection in this case.

After giving the matter due consideration during the day, I made up my mind that the man had been suffering, and had died of an attack of mania gravis, of an unusually severe type.

To set aside the possibility of his delirium being the symptom of an oncoming typhoid or pneumonia, or of any other gross lesion of the abdominal or thoracic viscera, I made a post-mortem examination at 4 o'clock on the afternoon of Monday, October 2d, and found the following state of affairs existed:

AUTOPSY.—The body that of a man about twenty-four or twenty-five years of age, well developed, and well nourished, dark in complexion. Rigor mortis not yet passed off. The incision through the integument and muscles revealed them to be extremely dark in color, the capillaries filled with blood. The heart was normal in position, size and condition, with

this exception; there was a well marked clot in the right auricle and ventricle and also in the left auricle.

The lungs were normal; the pleura on neither side showed adhesions; the pericardium contained not more than an ounce of fluid; the lungs showed but little, if any, sign of hypostatic congestion; the liver was normal in size and appearance; the spleen was normal in size and location; the kidneys were normal in size, and apparently perfectly normally constituted; the bladder contained a little urine. The intestines were somewhat inflated with gas, as was the stomach, but, with the exception of the lower portion of the large intestine, they were empty. I was not permitted to open the skull.

There was no evidence of any enlargement of the great blood vessels, and there was a very considerable amount of blood in the aorta and in the iliac arteries. Thus being able to entirely set aside the question of the mania being the initial symptom of a typhoid or a pneumonia, or of any acute inflammatory lesion of any of the thoracic or abdominal viscera, there being no evidence of any meningitis from the symptoms, the man having remained normal as to his cerebration up to within a few hours before his death, say twelve or fourteen hours, but one diagnosis remained to be made, and that was, *Mania Gravis*, of a most acute type and of unusual severity.

It may be stated as a part of the history of the case that the patient had suffered from typhoid fever a year before I saw him; that at that time he was sick for a period of ten weeks, and that he had made a good recovery.

The brother of the patient states that there is no history of any insanity or of any marked neurotic history in the family, nor had the patient ever suffered from any form of neurosis, having been, up to the time of his fatal mania, in good health. The patient had, a few days before his illness, lost a sum of money in a gambling transaction, but his loss had in no way affected him, as far as anyone had noticed. He had been in good spirits up to within a few days before the time of his first feeling of malaise, a few days before I was called.

During the time of his noisy mania his talk was largely concerning his wealth and money, and his delusions were expansive in character—great wealth, fine family, great power. He also believed himself to be a great criminal, and was pleased over his supposed crimes. He thought he had three or four revolvers in his trunk, and that he had killed a number of women and children.

A notable fact of the case is the slowness with which the spasmodically contracted muscles relaxed after the heart and lungs had ceased functioning. Fully ten minutes elapsed

after the man was dead before the extensor muscles of the fingers were relaxed, and the extensors of the toes were still rigid fully half an hour after death. Full relaxation of the muscles was not complete until after the extremities were quite cold.

NOTABLE CHARACTERISTICS.

- (1) Semblance in many respects to hydrophobia.
- (2) Low temperature.
- (3) Rapid fatality.

The question of differential diagnosis in this particular case between delirium grave and hydrophobia must rest on the following facts: While there is in hydrophobia great anxiety and oftentimes great delirium, and while in hydrophobia the distinctive symptom is the spasm of the glottis, and while in hydrophobia there is the period of depression lasting from three to ten days, accompanied with lassitude and aversion to society, and while in hydrophobia there is often a period of constipation lasting for some time before the development of the paralytic symptoms and those of collapse—all of which symptoms were marked characteristics of this case—the anxiety and the spasm of the glottis and larynx, the depression, lassitude and social aversion are more marked, the delirium is intermittent, and not of the character manifested in my case, while the delusions are not those of grandeur, nor of self-glorification, but are rather the peevish nothings of a mind worn out by the overwhelming influence of a powerful and irresistible cerebro-spinal irritant. In hydrophobia the periods of maniacal activity are intermittent, and the patient presents the appearance of one suddenly urged to get away from some grave impending danger, of the character of which he knows nothing, and his restless fear is interrupted by convulsive attacks of dyspnœa and dysphagia, accompanied by moans, groans and sudden outbursts of sound, the result of spasmodic attempts to articulate, which are so modified by the spasm of the glottis that the words are changed to the yelping and explosive sounds which have led the laity to believe that the sufferer “barked like a dog.”

Again, the duration of the disease in my case was so short, and the collapse so suddenly complete, that one is led to doubt but that the case might have been hydrophobia, but it is to be remembered in considering these facts, that the cases of delirium grave which have been described are most of them cases which have been seen in asylums or retreats, and not those cases which, having had a rapidly fatal course, have been mistaken for a pneumonia, or a typhoid “foudroyante.”

ETIOLOGY AND PATHOLOGY.—The etiology of the disease is still an unknown quantity but both Krafft-Ebing and Osler consider the origin of the disease to lie in the reabsorption from the digestive tract of some substance in the nature of a irritating ptomaine, or other autochthonous poison which causes an acute, but persistently active irritation of the cerebral cortex, and the motor centers, both spinal and cerebral.

Bell, who first described the disease, and Williams considered that there was probably some change in the structure of the cerebral cortex but were unable to demonstrate the existence of any such changes. Dr. J. F. B. Jackson, who with Bell and Williams examined and reported on a number of cases, was of the same opinion, but as his observations were made at a period before the present methods of examination of the intra-cranial tissues had been developed, he was unable to demonstrate the correctness of his theories. Williams, to whom we owe the name of "Typhomania" as applied to the condition, believed that there was a direct connection between this form of mania and the latter stages of typhoid fever, or that it was a sequence, always, of that disease. Inasmuch as at the time the disease was first brought under the notice of the profession as a distinct pathological condition, it had been noticed to be of most frequent occurrence among immigrants, and people who had been exposed to great hardship or long voyages under unhygienic conditions, Ranney was of the opinion that it had its origin in the deprivations of a long voyage, and the accompanying diminishment of stamina, perhaps also to disappointed hopes as to immediate prosperity in the new land of adoption, or to failure to secure employment, worry and anxiety. Stearns (*Lectures on Mental Diseases*, fol. 530,) considers that heredity, predisposition to brain disorder, excessive heat, great physical, mental and alcoholic excesses, all hold a causative relation to the disease.

Solvietti considered that there was a condition of sudden cerebral hyperaemia with relaxation of the cerebral capillaries and a consequent persistent cerebral irritation.

From a review of the various theories advanced it would seem that the theory of Osler is, perhaps, the most tenable, on theoretical grounds. From what we know of the action of the various substances formed in the processes of intestinal digestion on the nervous system when these substances are absorbed and not excreted, it is a safe hypothesis to follow, to suppose that there may be, under certain circumstances, an acute cerebral and spinal irritant, the analogue of strychnia, and having the deliriant action of cannabin, formed in

the intestines, which might be capable of producing all the symptoms included in the picture presented by the disease in its most active state. Particularly is such an hypothesis admissible when it is known that in most of the cases observed the disease has been accompanied by digestive disturbances, or has been the sequent of some disease whose prominent pathological lesions were in the intestinal tract. "That grave delirium is the result of a vaso-motor overstrain analogous to that supposed to exist in paretic dementia, is supported by the etiology, the manner of origin, and the somatic sequelæ of this disorder." (Spitzka, fol. 250). Frequency of the disease among people of the class who have received educational advantages, has been remarked, and it has been stated by a number of writers that it is about three times as frequent among females as among males. It is strictly a disease of adult or adolescent life, and has never been noted or diagnosed as occurring among children. It may, however, be possible that cases of delirium grave have been seen among children and diagnosed as typhoid, or as the delirium of an onsetting pneumonia and, as it is often the case, according to Osler, that one of the gross lesions found after death is a marked infiltration of the lower and posterior portions of the lobes of the lungs, it may well have happened that such cases have passed as pneumonia of a peculiar type, the very fatality of the disease lending weight to such a diagnosis. Whitwell (*Journal of the Medical Sciences*, London, 1892) considers that there is a condition of extreme hyperæmia of the brain, and that death is due to fatty embolism of the lungs.

The sudden collapse, cold extremities, dusky pallor of the face, cyanosis, dyspnoea, and shallow respiration, all point to some condition of acute pulmonary obstruction, and he believes that the embolism is the result of some change brought about in the blood by the incessant maniacal activity.

Krafft-Ebing also is on the side of the theorists who consider the cerebral condition to be one of intense hyperæmia. He says: "I think that in mania we have a condition of supernutrition, with overheating of the psychical machine."

Osler says: "The anatomical condition is practically negative, or at any rate, presents nothing distinctive. There is great venous engorgement of the vessels of the meninges and of the gray cortex. In two cases in which I made a careful microscopic examination of the gray matter, there was perivascular exudation and leucocytes in the lymph sheaths and perigangliar spaces."

Examinations of the brains of persons who have died from delirium grave have not been as fruitful of results which

clear up the origin of the symptoms, as could be desired. All, however, are agreed on the following conditions:

The meninges are found in a state of great congestion, and there is distension and engorgement of the sinuses and vessels with dark, venous blood.

There is an exudation of leucocytes into the perivascular spaces, and often adhesions of the pia mater to the apices of the cerebral convolutions; there is infiltration of the lymph spaces, and the ganglia are compressed by the blood elements.

Microscopically, the cortical substance stains badly and is seen to be in a condition of granular change.

The capillaries of the surfaces of the brain are dilated and injected. (Krafft-Ebing.)

The gray matter is injected, and changed in color to a red or pinkish hue. (Schuele.)

Macroscopically, the brain appears swollen, and in the case of patients dying in the third stage of the disease, is found to be infiltrated with serum, and the ventricular spaces contain an excess of free fluid. (Spitzka.)

The pathological changes are confined to the gray matter, in the cases dying during the second stage, and the deeper portions of the gray matter are found to be more deeply discolored than the more superficial parts. (Briand.)

The basal ganglia are as much affected as are the superficial, and in those cases of comparatively long duration the white substance shows changes, the result of prolonged arrest of return circulation from the brain vessels. (Stearns.)

Other ætiological factors are found to be the puerperal state, excessive mental strain from business or study (indeed Spitzka considers the cases of so-called "meningitis from overstudy" to be cases of true mania gravis), sudden misfortune, great business reverses, great nervous or physical exhaustion, unusual vicissitudes occurring to people already exhausted by disease or privation, alcoholic excesses, and Schuele (*Handbuch der Geistes Krankheiten, von Heinrich Schuele*, Vol. XVI, 1878) has noted a case the direct result of great physical suffering.

DURATION OF DISEASE.

Both Spitzka and Stearns, who have perhaps written more on the disease as viewed from the more modern standpoint than any others, have stated that the disease was one having usually a duration of from ten days to two weeks or three weeks at the most. I have not been able to find a recorded case in which the fatal termination was a matter of so few days or rather hours as in the case which is the motive

of this paper, but that my case was any the less a case of delirium grave I am not prepared to believe.

In recorded cases the period of depression, malaise and lassitude extends over a week or longer. In the case above described it was a matter of two or three days at the utmost from the time of the beginning of the depression to the stage of mental excitation and active mania.

SYMPTOMS AND STAGES OF THE DISEASE.

The greater number of those who have written on the disease have divided its symptoms into two stages, the stage of mania and the stage of collapse, but it would seem to me that it is a safe and more scientific method to give to the disease a division into three stages:

1st.—The stage of Lassitude and general systemic disturbance.

2d.—The stage of Delirium.

3d.—The stage of Collapse.

FIRST STAGE.—The patient who may have for sometime been under an unusual mental strain develops an unusual aversion to society, a perverted appetite, the tongue is coated. the breath becomes foul, the bowels lose their regularity of function, the memory is confused or recollection of common incidents becomes difficult, there is a vague sense of impending danger, the character of which the patient is unable to describe (panphobia), unusual irritability and a desire for seclusion, unusual irritability of the peripheral nerves, with accompanying hyperæsthesias; the patient starts at sounds and noises which in a normal state of health would not be noted, an undescribable feeling of uneasiness in the extremities, accompanied perhaps by an increase of the reflexes, impairment of vision, objects being seen but dimly, or when seen seem to have colors and shapes which are not normal to them; there is insomnia, and sleep, when obtained, is interrupted by dreams of a terrifying character, the patient is averse to attempting any new undertakings, and finds those already begun to be burdens which seem to him to be more than he can carry, and after a few days or a week of this condition, marked by no distinctly pathogomonic symptom, the invalid suddenly passes into the second stage of the disease, the stage of delirium.

Or sequent to some grave malady, or in the instance of people for a long period exposed to the possibility of contagion from some grave disease, or among people who have been for a long time under some great mental strain, or who are burdened with some great responsibility, the first stage

may be wanting and the stage of delirium suddenly and without warning may appear.

Spitzka states with considerable insistence that the cases of "meningitis from over-study," which attack the student who has an impending examination in view, or the lawyer pressed for time in which to prepare a complicated brief, are but cases of delirium grave, "brought about as much by the emotional strain attendant on" the peculiar demands made on the brain, as by the over-study itself.

During the period of lassitude the temperature may be slightly higher than normal, but there is no marked upward variation sufficient to call attention to the general bodily disturbance.

The symptoms of the second stage may be conveniently classed as (*a*) physical and (*b*) mental.

PHYSICAL SYMPTOMS OF SECOND STAGE.—The patient's temperature rises to a point seldom over 102° , although it may reach as high as 105 or 106° . The pulse, at first slow, full and bounding, rapidly assumes a threadlike, wiry character, and is accelerated to 130 or even higher; the face assumes an extremely animated appearance at first, soon loses its color, the lips appear blue and there is a circle of unusual pallor about the mouth. The eyes become congested, the conjunctivae overshot with swollen capillaries, the eyes seem to be bulging from the orbit, the pupil is fully dilated, and later the eyes assume a glassy and expressionless appearance, which but little accords with the incessant activity of the body. The skin, and especially that of the head, breast and neck, become covered with a profuse perspiration, and finally assumes a dark and ashy color. The mouth becomes filled with a stringy mucus, which the patient continually tries to expectorate, usually with but little success, so that it is dropped over his breast and clothing, and hangs from the corners of the mouth; later sordes develop on the gums and lips, and the tongue becoming swollen, seems to be too large for the mouth, protruding between the lips. The hands, which are constantly in motion, become swollen, the fingers blue, and cracks may develop between the nails and their matrices. Digestion is arrested, the bowels become filled with gas, and the patient belches up large quantities, with great noise and without relief. Or there may be vomiting and convulsive movements of the oesophagus and larynx, causing dysphagia and dyspnoea.

The movements of the body are often convulsive in character, the same action being repeated over and over again; salaam movements are frequently seen, in Westphal's case, the movements were as though the patient were constantly

working a pump handle, or the patient may walk continuously up and down the room, repeating his journeys incessantly until absolute exhaustion alone limits his ability to continue them.

The patient is impatient of restraint and struggles and fights desperately for release from any effort to restrain his mad activity, he strikes at attendants, and bites and kicks aimlessly at anyone who attempts by force to control him. In spite of his great activity, however, he can at this stage of the disease be startled into a condition of calmness of sufficient duration for a thermometrical record to be obtained, or to make a reasonable answer to a direct or simple question.

There may be marked dyspnoea and dysphagia, or aversion to some particular article of food or drink.

The respiration may be sighing, or irregular, oftentimes gasping in character, and the patient may suffer from some marked spasm of the larynx, as to lead him to grasp at the throat as though to remove some source of compression, which seems to him to be occluding the windpipe. He may be even so far overcome by this impression of inability to breathe, that he may tear his flesh with his nails, or in his fury bite himself, and even eat off his fingers, without apparently feeling any pain in the process (Jessen). Grinding the teeth, sudden variations in the lumen of the pupil, and strabismus may occur.

The pulse becomes quicker and weaker, and the convulsive movements more and more marked, until, if he survive this second stage and the exhaustion attending it, he passes into the third stage, the stage of collapse.

MENTAL SYMPTOMS OF THE SECOND STAGE.—The onset of the delirium is as a rule very sudden, and is only preceded by the single cerebral symptom of headache which is usually confined to the the anterior portion of the head; accompanying it, may be a sense of fulness and of a confused rumbling sound as of distant escaping steam. During the period of headache the patient may wander aimlessly away from his friends, or may move aimlessly about his apartments with a staggering gait and an unsure and tremulous manner, utterly unable to account for his excursions, or to give reasonable cause for his restlessness. The manner is that of a drunken man and the enunciation that of a child.

Suddenly this state may give place to a condition of wildest delirium, and incoherent frenzy. The character of this is as a rule more or less tinged by vague ideas of fear. The patient sees blood, flames, monsters indescribable, corpses fill his imaginative environment, fierce animals attack him, enemies seek his annihilation, he is on a precipice, or on

some pinnacled rock from which strange forces seek to hurl him, he is compassed about by crowds of strange persons who repeat to him unceasingly the same stories of his crimes or of his evil disposition. His manner is that of one in great bodily fear, or being enangered by the machinations of his ghostly persecutors he fights fiercely to defend himself from his delusionary enemies, and bites, strikes and kicks at his attendants. His articulation becomes indistinct, and his efforts to speak resolve themselves to the production of a series of repeated expressions, which are of the simplest character. Or he repeats over and over again some series of unconnected words, or some insignificant sentence, or counts hour after hour through some series of numbers. The tendency of the ideation is toward something which may have some remote connection with the particularly prominent mental strain which has been the last factor in the mental unbalancement. The lawyer addresses an imaginary court in a series of repetitions of some phrase which may be only in the remotest degree related to the matter which was last prominent in his mind before his accession of delirium.

Or an impression subjectively evolved from the already disturbed mental co-ordination may gain ascendancy, and the rambling may be incoherent and, as far as can be observed, have no connection with anything which may have passed in the previous and sane portion of the patient's life. Frequently the delusions have some connection with some sexual crime, or may hinge on some delusion relating to seduction and desertion of women. Or, in the case of women attacked, may be the direct result of such desertion.

Delusions of personal grandeur are exceptional (Spitzka), but the delusions are almost invariably expansive, and usually have some relation to the patient, personally. Hallucinations of hearing are the exception, according to Stearns and Lindsay, but it is to be noted in my case that the patient believed that there was some one whispering to him that there was a large amount of money in his trunk.

The patient thus repeats some trivial act, or continuously reiterates some trivial series of words, until, exhausted, he throws himself on his bed to rest only long enough to gain strength to again begin his ceaseless movement and ceaseless reiterations.

The heart becomes more and more rapid and more and more weak, the lips become blue and the patient dies of exhaustion, or if the stage of collapse is reached it is only after a week or ten days of existence of the picture of which the foregoing is but a feeble delineation. During this time insomnia is constant, and does not yield to the largest doses of

opiates. The temperature seldom rises above 102° , although it may reach 106° . The bowels are moved unconsciously, if at all, and the action of the bladder is spasmodic and not entirely under the control of the patient. There are frequent convulsive attacks, which may even seem epileptiform in character. Anæsthesia is a marked characteristic of this stage, and the patient seems all unconscious of any damage he may do to himself in his restlessness or in his convulsions.

If the patient survives this stage gradually the delirium becomes less maniacal, the repeated rythmical acts are less and less frequent, the continued reiteration of senseless phrases ceases, the convulsions become less frequent and the patient passes into the third stage, that of collapse.

THIRD STAGE.—The symptoms which are prominently present in this stage of the disease depend for their origin on (*a*) the cerebral or mental disintegration, (*b*) on physical exhaustion, and (*c*) on the trophic changes in the tissues, the result of the perverted nutrition and inhibited circulatory control (vaso-motor inhibition).

The patient, having passed through the stage of delirium, sinks quite rapidly into a condition of complete collapse. Collapse so complete and entire that its manifestations are only to be compared to the parallel condition following a severe typhoid, yellow fever or cholera. The patient lies torpid, numb, lethargic, somnolent, yet not sleeping; irritable, yet making no effort to resist any irritating agent; listless and intellectually benumbed, fretful and peevish, yet inactive; intellectuation sluggish or entirely dormant, a perfect example of an individual merely existing, without purpose or energy. The face is pale, the lips trembling, the movements of the hands and extremities uncertain and purposeless. The eyes are turned slightly upward, the pupils dilated and but slightly reacting to light, the lids half closed, and their movements slow, uncertain and but partially under the control of the patient. The heart's action is fluttering, irregular and accelerated, the radial pulse felt with difficulty, and only at times when the heart impulse is for a moment increased in intensity. The pulse is thready, and the artery feels like a soft roll of silk under the finger. The respiration is slow and superficial, and the expansion and contraction of the thorax is with difficulty to be discerned. From time to time a deeper inspiration is attempted, but its continuity is interrupted and broken. Apathetic, silent, indifferent, the patient lies with the extremities flexed, the knees drawn up against the body, the arms folded, and the chin depressed into the chest, paying no attention to what is

going on about him, seemingly oblivious to all except mere organic existence.

The mental functioning seems to be *nil*, or if startled from the apathy for a moment it is but to fall at once into a condition of dullness and torpor, so soon as the irritation which has been the disturbing element has passed.

Thought and reason seem for the time to be in complete abeyance, or if for a moment the attention is fastened by a sudden and startling question, the reply is slow in coming and perhaps has nothing, or little to do with the matter.

The condition of the patient is analogous to that of the patient who has just passed through the raving and wildly active delirium of any of the more sthenic fevers, or to the reactionary condition following an attack of simple mania.

The appearance of the face is characteristic of complete mental hebetude, the eyes are either staring and expressionless or closed, dull and heavy.

Hearing is impaired and it is often difficult to discern where the partial deafness ends, and the mental capacity for intelligent perception of sounds begins.

The sense of touch is partially lost, and there are areas of complete anæsthesia, principally on the flexor surfaces of the extremities. The skin is discolored, and there may be evidences of jaundice, probably of an hæmatogenous character. The nails present an area of atrophy, marking the date of the greatest maniacal disturbance, and the hair either falls out or becomes dead, dry and lifeless.

The gums may be retracted, the teeth loosened and there are small petechiæ on the mucous membrane of the mouth marking the site of small submucous hæmorrhages.

The skin often desquamates, and there may be peeling off of patches of the mucous membrane, both of the mouth and of the bowels (desquamative diarrhœa).

The muscular system seems to have suffered severely, and this muscular weakness is evidenced by tremors, spasmodic and uncontrolled contractions of single muscles and groups of muscles, while there may be symmetrical atrophies of muscle groups in any part of the body. The reflexes, at first increased and greatly exaggerated, become diminished or lost entirely.

In Schermer's four cases the patella tendon reflex had entirely disappeared. He adopts Erb's view that this reflex has for its centripetal nerves the tendon nerves of Sachs and branches of the anterior crural nerves. Considering that the spinal cord probably suffers from the same irritation which in its action on the brain produces the grave symptoms of the disease, it is easy to understand that the center for this

reflex, in the upper lumbar region, suffers as well, and that the reflex being carried centrifugally by the motor fibers of the anterior crural nerve, any interference with the nutrition of the posterior columns of the cord at the level of the upper lumbar spine, would necessarily result in inhibition or complete abolishment of this reflex. The same or analogous reasoning would apply to the other reflexes.

The spleen is often enlarged, and there may be constipation or paralysis of the sphincters, with incontinence of fæces and urine.

Boils and phlegmons of various kinds are frequent, and there is often an outbreak of pustules and macules, and a pemphigus-like eruption of the dorsal surfaces of the feet and hands.

Localized and symmetrical gangrenes may occur on the extremities, and bed-sores are prone to form on the back, or over the crests of the ilia.

If the patient survive this stage of the disease, convalescence proceeds but slowly, and the functions of the body are restored only after long weeks of careful nursing.

At the best recovery is incomplete, the functions of the nervous and muscular systems being never entirely restored, and the intellect never returning to the condition of activity which existed before the attack, in many "paretic and terminal dementia supervene."

When death takes place during the third stage of the disease, it is by a continuation of the stupor, exhaustion and coma.

DIFFERENTIAL DIAGNOSIS.

Confusion is likely to take place in the diagnosis of acute delirium from a number of forms of disease, presenting distinctly sthenic cerebral symptoms. Among these are

Acute mania,

Sunstroke with delirium,

Meningitis or cerebritis,

Uræmic mania with convulsions,

Hydrophobia,

Maniacal initiation of pneumonia or typhoid fever.

More difficulty will, perhaps be found in distinguishing between acute mania and acute delirium than between any other two conditions, and the diagnosis must rest on the following facts:

In acute mania there is a period of perhaps a number of weeks during which the prodromata of the approaching disease are to be noticed, while in acute delirium the period of malaise extends over but a few days or a week.

In acute mania there is no perversion of appetite, or of digestion, while in acute delirium both are lost entirely.

Acute delirium is astonishingly sudden in its onset, and the character of the delirium is without any apparent system or regularity in its tendency, while in acute mania the delusions follow an evident sequence, and are as a rule perversions of intelligence in a particular direction, or follow some direct line of delusion.

The temperature will be a sure guide in the diagnosis between delirium grave and sunstroke. In the latter condition the thermometer will register a degree of temperature far above the normal, while in the latter condition the temperature curve will seldom, in the earlier stages of the disease, go above 102 or 103.

Meningitis and cerebritis are marked in their stage of approach by a period of distinct febrile activity, and the earlier stages of the disease present a condition of comparatively slowly approaching intellectual disintegration, accompanied by corporeal symptoms, perhaps pneumonia or ulcerative endocarditis, which indicate the inflammatory character of the disease, whereas, in cases of delirium grave, the state of delirium is preceded by no stage of fever or of inflammatory symptoms.

The condition of the urine, the state of the heart, the character of the pulse and of the blood vessels, the odor of the sweat, and, when other signs fail, an examination of the fundus of the eye will serve as a means for a clear differentiation between delirium grave and an acute attack of uræmic poisoning with delirium.

In another part of this article I have endeavored to make clear the diagnostic points between hydrophobia and the acutely delirious stage of the disease under consideration,

Between delirium grave and an oncoming pneumonia with delirium, the differential diagnosis is not so easy as might at first be supposed. However, the character of the mania in the early stage of pneumonia is less violent than in delirium grave, and the development of the thoracic symptoms, the relatively higher range of temperature of the early stages of pneumonia, and the character of the sputum must serve as the factors in a differentiation of the two conditions.

As between typhoid, with early delirium, and delirium grave the diagnosis must rest on the slower development of the symptoms in the former condition as compared with the latter, and as the disease progresses, the character of the diarrhœa, the early enlargement of the spleen, the occurrence of the eruption, the character of the pulse, and the development of tympanites, will clear up all doubt as to the character of the disease.

TREATMENT.—It will be evident from what has been said in regard to the symptoms of the disease, that all efforts in the way of treatment must be in the direction of endeavoring to control the patient's fury, so that he may do himself as little harm as possible, and that the nutrition should be held at the highest possible point consistent with the endeavor to relieve the symptoms depending on the condition of hyperæmia of the brain.

An attempt to control the delirium and produce sleep should be made with the bromides and chloral, and in hyoscine will be found a remedy which, according to Erb, will give the best satisfaction in the effort to soothe the excitement and irritability. In the hands of Spitzka it has proved of benefit and, although a derivative form of treatment is recommended by Brush, he speaks of hyoscine as being the remedy par excellence for procuring sleep and rest from the wild and exhausting activity.

Krafft-Ebing looks on hyoscine with suspicion, considering that it interferes with the activity of the stomach, and recommends opium or morphia. He considers an hydrotherapeutic line of treatment to be most desirable and likely to prove of the greatest benefit in the control of the disease.

The heart should be sustained by the use of digitalis and ergotine both during the stage of active delirium, and especially during the stage of collapse, when heat applied over the thorax will be of the greatest benefit in maintaining the integrity of the heart's action.

Stearns recommends the hydrobromate of hyoscine most highly as the safest and surest means for the production of sleep, and even in the initial stage of the disease it has proved in his hands of the greatest value.

During the stage of collapse the treatment should be in the direction of maintenance of nutrition and removing all sources of nervous or physical irritation.

When the patient is able to retain nourishment, fluid foods should be given by the mouth, and in those cases in which it is impossible for the patient to swallow, nutritive enemata should be employed with persistent regularity. The very instructive case of Stearns, proving the value of that method of maintaining the nutrition until the strength both of body and mind returned.

Patients suffering from acute delirium should be transferred at once to a suitable asylum or other resort for the treatment of mental diseases, where they can be under the intelligent supervision of persons skilled in the difficult process of nursing that class of cases, for it is certain that in this condition the nursing and hygienic care have far more to do with recovery than anything else. Seclusion, under the con-

trol of a properly qualified attendant, is the primary essential of any form of treatment.

MORTALITY.—The disease is almost invariably fatal, death taking place during the stage of delirium, from exhaustion, or if the hypothesis of Whitwell (*Jour. Med. Sci.*, London, July, 1892) be correct, from fatty embolism of the lungs.

If the disease is prolonged, death results from inanition, the result of impairment of the nutrition from the inability to retain nourishment. The constant vomiting and diarrhœa, and the ceaseless activity so weakening the patient as to invite heart failure, and death. A case of Stearns, which recovered, clearly shows the effect of persistent efforts to maintain the nutrition at the highest possible point. Nutrient enemata having maintained the strength, while other remedies were being used, the patient's condition being directly affected for the worse so soon as the enemata were stopped, and improvement following their re-adoption.

Should recovery take place, it is after a very prolonged period of convalescence, the disease usually leaving the patient more or less weakened intellectually. In those cases in which there has been a previous insanity, the recovery is almost invariably imperfect, the patient remaining insane. After the complete disappearance of the maniacal symptoms there is frequently impairment of special functions, atrophy of special muscle groups, weakened vision and hearing; perhaps persistent strabismus, or localized paralysis.

In many instances (Ranney) in individuals who have not, previous to the attack of delirium grave, been in unhygienic surroundings, the recovery may be rapid and the patient, to all intents and purposes, be as well as ever, but by far the larger number of cases die, and those which recover are, to a greater or less extent, mentally and physically impaired.

According to Spitzka: "Complete recovery never occurs. In rare instances the patients emerge from this severe disorder with a slight mental defect, in others, paretic and terminal dementia supervene."

PROGNOSIS.—The prognosis in acute delirium is invariably grave. It has been seen how rapidly death supervened in the case recorded, the terrific activity having worn out both heart and brain.

"The disease is certainly one of the most formidable which we are ever called upon to treat. Recoveries are, however, not unheard of, and I am inclined to think, from reports, are more common in this country than in Europe." (Stearns.)

Death takes place in eighty per cent. of these cases, according to Erb, and, following Schuele, we must believe that the percentage of recoveries is but little higher than fifteen or eighteen per cent.

TRANSLATORS AND ABSTRACTORS.

ENGLISH.

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SWEDISH, DANISH AND NORWEGIAN.

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NEUROLOGICAL.

ANATOMY AND PHYSIOLOGY.

ON THE ORIGIN OF THE ACOUSTIC NERVE.—Sala has attempted to determine this question by the use of Golgi's method on calf embryos and new born kittens, and concludes that: 1. Neither the posterior or dorsal, Deiter's nor Bechterew's nuclei are nuclei of origin for the fibres of the acoustic nerve. The cells of these nuclei are of Golgi's first type; they send off fibres which probably form part of the formatio reticularis. 2. The anterior or ventral nucleus is the true nucleus of origin for the fibres of the posterior root of the acoustic nerve (cochlear nerve), and the acoustic tubercle is the nucleus from which the greater part of the fibres forming the striae acusticae originate. 3. The anterior nucleus consists, in its central portion, of elements bearing the character of central nervous elements, while its peripheral portion is composed of encapsulated elements which resemble the peripheral nerve-cells. The axis-cylinder process of the central cells is like that of the second type and forms a network, from which the fibres of the inner and anterior part of the anterior root of the nerve originate. The others send out their axis-cylinder processes, which implant themselves, at a right angle, into the fibres of the anterior and posterior roots. 4. Fibres from the anterior nucleus are found in the corpus trapezoides, which are equivalent to one of the branches of the T-shaped division of the fibres originating from the peripheral cells of the nucleus. 5. The inner portion of the posterior root (cochlear nerve) originates in the nervous network of the anterior nucleus. The outer portion (striae acusticae) has its origin in greater part from nervous cells of the tuberculum laterale; a small portion originates in the central cells of the anterior nucleus. 6. A connection between the anterior root and the cerebellum is formed by fibres, which

run from the anterior root through a part of the cerebellar peduncle, pass along the lateral wall of the fourth ventricle and pass into the embolus. 7. The anterior root of the acoustic nerve contains fibres derived from the restiform body. 8. The peripheral part of the anterior nucleus must be regarded as a peripheral ganglion, analogous to the spinal ganglia, belonging to the anterior root and the inner part of the posterior root. [Arch. f. Mikroskop. Anatomie, 1893. Bd. XLII.] (*Neurolog Centralbl. No. 21-1893.*)

G. J. KAUMHEIMER.

THE FINER ANATOMY OF THE OPTIC NERVE AND TRACT.—Prof. Henschen, of Upsala, has published in the Swedish language a resumé of the results of his investigations into the course of the optic fibres, which he has carried on for nine years. Besides the neurons which may be found in the retina and cortex, the optic path consists essentially of two neurons or nerve units; an anterior one, consisting of fibres extending from the large ganglion cells of the retina, through the optic nerve, the chiasm and the optic tract and ending in the geniculate bodies; and a posterior one, composed of the ganglion cells of the geniculate bodies and the fibres running from them to the occipital lobe, being lost in the cortex of the calcarine fissure. The course and position of the fibres composing the optic nerves, are as follows: The macular bundle, which, at the papilla, lies latero-ventrally, becomes more central as it proceeds backward, and in the chiasm and optic tract is the central bundle. The uncrossed fibres at the papilla form two bundles, a dorso-lateral and a ventro-lateral, separated by the macular fibres; further back these unite to form a lateral bundle. The crossed fibres at the papilla lie in a medial or dorso-medial plane and keep this position throughout their course. On entering the chiasm, the uncrossed fibres, which have before formed a compact crescentic bundle, divide into a number of horizontal rays which alternate with similar rays formed by the crossed fibres. A certain proportion of the uncrossed fibres keeps its course at the periphery of the chiasm, but the main mass of them runs medially, intermingled with the crossed fibres. The crossed fibres, in passing through the chiasm, change from the dorso-median position which they occupy in the nerves, to a ventro-median position in the optic tract. The uncrossed fibres also undergo a change in position, so that in the tract they run in a latero-dorsal position. The fibres representing the dorsal half of the retina run dorsad in both bundles. These bundles run separately until the geniculate body is reached,

where they coalesce. The optic fibres, in part, form the capsule of the geniculate body, and, in part, enter it, forming the so-called medullary lamellæ. The geniculate body is, therefore, the main visual ganglion, although optic fibres can be seen to enter the pulvinar and anterior quadrigeminal body. These latter fibres, however, do not seem to transmit visual impressions and a lesion in them does not seem to cause a defect in the visual field. From the ganglion cells of the geniculate body fibres pass backward into the occipital optic path. They form a compact fasciculus about 5 mm. in diameter, which passes, at the level of the first temporal fissure and second temporal convolution, backward to the bottom of the calcarine fissure. In this optic path the fibres for the dorsal retinal half lie dorsad, as in the anterior part of the tract. The cortical visual center lies at the bottom of the calcarine fissure, and is restricted to it, its upper lip and lower lip representing the same parts of the retina respectively. A unilateral lesion in this fissure causes complete hemianopsia. It is probable that the center for the macula lies anteriorly, and that for the peripheral portions of the retina posteriorly. The macula is often innervated from both sides of the brain. The elements for the crossed and uncrossed fibres are not distinctly separate, but lie close together. This visual center takes cognizance of color as well as of light. Analogous to the fibres connecting the retina with the pulvinar and anterior corpora quadrigemina, we find fibres connecting these parts with the visual center; these are probably reflex paths. The theory of the French school that the visual tract takes part in the formation of the internal capsule, or that it again decussates behind the chiasm, is incorrect. [Om synbanans anatomi ur diagnostisk synpunkt, af Prof. S. E. Henschen. Upsala, 1893, Edw. Berling, p. 56.] (*Neurolog. Centralbl.* No. 23, 1893.)

G. J. KAUMHEIMER.

A CORTICAL CENTER FOR BLADDER AND RECTUM.—Troje described and demonstrated the following interesting case: A girl, aged 18 years, sustained a fracture and depression of the skull at the age of 1½ years. Since her twelfth year she had suffered from epilepsy of a cortical type, beginning in the left arm. A temporary craniectomy of the depressed skull showed a cystic degeneration of the gyrus supramarginalis, the posterior part of the middle section of the gyrus postcentralis and of the posterior part of the gyri around the fissure of Sylvius. The clear contents of the cysts were evacuated, the septa of degenerated brain tissue broken

down and a projecting ridge of bone removed. There were no convulsions until the twentieth day, when they were severe. A mild spasm also occurred on the forty-seventh day, after which none occurred. The main point of interest is that a disturbance of innervation of the bladder and rectum was noted during the first fortnight. This coincides with a recent publication by Bechterew, who demonstrated a center for the bladder and rectum within the cortical area for the anterior extremity in the dog. (*Deutsch. Med. Wochenschr.*, No. 44, 1893.)

G. J. KAUMHEIMER.

PHYSIOLOGICAL DIGNITY OF THE CEREBRAL CORTEX, WITH A REPORT ON THE BRAIN OF THE GOLTZ DOG.—Edinger spoke on this subject at the twelfth German Congress of Physicians. An almost faultless series of sections showed that Goltz had indeed succeeded in removing the entire fore-brain from his dog. Only a small remnant at the base anteriorly, and a part of the right cornu ammonis, over the thalamus, were found. Posterior to the thalami the brain was intact. The sections showed that the secondary degenerations, very numerous in the inter-brain, became very few in number in the mid-brain and were restricted in the cord to the pyramidal tracts. The various parts of the central nervous system are centers per se, which are connected to higher centers by a relatively small number of fibres. Physiology teaches that these centers, anatomically distinct, are able to act to a certain degree independent of each other. It was not heretofore known that a mammal could live without the fore-brain and carry on the functions which the Goltz dog did. He was neither paralyzed nor insensible, he could eat without aid, realized certain sensations and was not absolutely blind or deaf. But it was never observed that he utilized any impression, he accumulated no experiences, nothing could change his mood or temper, nor was it possible to become acquainted with him. Edinger proved in 1887 that the cerebral cortex first appears in the reptilia. In fishes it is altogether absent, in amphibia only traces are found. In the ascending scale of vertebrates the cortex progressively increases in extent, and with it the number of intercortical connections, which go to make up the main mass of the hemispheres. It is certain, as Schrader has proven experimentally, that the cortex is not indispensable to the performance of the functions we see performed by the lower animals mentioned. As we ascend the vertebrate scale, the cortex becomes added to these lower centers into which the sensory nerves run and from which the motor nerves originate. These centers are capable of independent action, but

all our knowledge points to the fact that the higher psychical functions appear with the cortex and are sustained by it. The higher animals, and especially man, do many things under the control of the cortex, which might be done, perhaps in a different manner, by the lower centers. With the loss of the cortex, the ability to accumulate and utilize sensory and motor memories becomes lost. In man, the use of the cortex is so intense in degree and habitual that the loss of even a small area of cortex is attended by disturbance of function. Irritation experiments and the lessons of pathology teach that the lower centers may be set in action from the cortex. Edinger adopts fully the modern theory of localization. Goltz's experiments are not at variance with the results of pathological or physiological investigation. They show that the fore-brain is not indispensable to certain functions even among animals quite high in the scale, and that it is especially the higher psychical functions which are lost with the cortex. This much granted, it becomes of great interest to determine what functions are subserved by the cortex where it first appears in the reptilia. Edinger has determined that in this family the cortex is almost exclusively connected with the olfactory apparatus, and deduces from this "that the first higher psychical functions observed in the animal scale are those which tend to the utilization of the olfactory sense." (*Deutsche Med. Wochenschr.*, No. 28. 1893.)

G. J. KAUMHEIMER,

A NEW STAIN FOR THE NERVOUS SYSTEM.—Rosin reports on results obtained by staining sections of the cord and nerves, after hardening in chromic acid, with Erlich's neutrophile (or triacid) solution. The constituents of the cord are found stained as follows: The medullary sheaths an orange yellow, the axis cylinders a vivid red, the surrounding connective tissue violet, the coarser connective tissue bundles and the adventitia of the vessels a rose color, their endothelia as well as the nuclei of the neuroglia a bluish-green, and their protoplasm a pale rose. Degenerated fibers are detected by the absence of the orange sheath and the presence of gaps in the violet network. The gray substance shows numerous naked axis cylinders. The ganglion cells stain strongly, being of a red color with a tinge of brown. Their nuclei do not stain at all, being seen as clear vesicles in the dark red cells, while the nucleoli take the color of the protoplasm. A detailed description of the technique is promised. (This has since appeared in *Neurologisches Centralblatt*, No. 23. 1893.) (*Deutsche Med. Wochenschr.*, No. 36, 1893.)

G. J. KAUMHEIMER.

ON GALVANIC VERTIGO IN DEAF MUTES AND ITS RELATIONS TO THE FUNCTIONS OF THE LABYRINTH.—Pollak (Pflüger's Arch., LIV., 4 and 5) has examined the phenomenon of galvanic vertigo in 50 healthy persons and 82 deaf mutes, and concludes: (1). The disturbance of equilibrium caused by the passing of the galvanic current through the human head is due to stimulation of the vestibular apparatus. (2). In healthy persons this stimulation is made evident by typical movements of the eyes and head. (3). In 30% of deaf mutes these movements are absent. This speaks in favor of Breuer's theory that the vestibule is an organ of sense, which perceives through the semi-circular canal's rotation and through the otoliths, progressive acceleration and the relations of the head in space. According to Mygind's collection of autopsies on deaf mutes the semi-circular canals are affected in about 30% examined.—(*Neurolog. Centralbl*, Nov. 18, 1893.)

G. J. KAUMHEIMER.

CONTRIBUTION TO THE PHYSIOLOGY OF THE PERIPHERAL NERVE.—Dr. Boeck, by the aid of very complicated and delicate apparatus, tried to solve the question of the generation of heat in the nerve during activity. His apparatus was sensitive to 1–10,000 degree. He found that in the sciatic of the frog a sensory stimulus had no effect. A motor reaction was occasionally followed by a rise in temperature, which was strictly proportionate to the muscular work. The nerve itself showed no change in temperature, either from motor or sensory stimulation. These results were constant in the frog and rabbit.—[Contribution à l'étude de la Physiologie du Nerf par de Boeck, Bruxelles, 1893, Henri Lambertin.] (*Neurolog. Centralbl*, Nov. 18, 1893.)

G. J. KAUMHEIMER.

PATHOLOGY AND SYMPTOMATOLOGY.

CORTICAL HEMIANOPSIA WITH CIRCUMSCRIBED CUNEUS LESION.—Dr. Vialet reports (“Mecredi Med.”) two cases of left hemianopsia with right incomplete hemiplegia. In one case there was also right hemianæsthesia. On autopsy there was found a recent white softening of all the posterior part of the left hemisphere in the cortex and white substance. In the right hemisphere there was found a patch of yellow softening involving a quarter of the cuneus. Histologically the lesions proved to be more extensive than they seemed macroscopically. The atrophic changes involved the anterior two-thirds of the cuneus, the anterior half of the calcarine fissure, the base of the internal perpendicular fissure, the foot of the cuneus, and extended to the foot of the hippocampus. It hence involved all the territory nourished by the anterior branch of the occipital artery (Monakow’s parieto-occipital artery.) This primary lesion had produced degeneration of the inter-hemispheric association fibres of the corpus callosum and the optic radiation fibres. Two zones of degeneration existed; one small, on the external parietes of the cornua occipitalis; the other, much larger, surrounding all the inferior half circumference of the same cornua. This zone of degeneracy could be followed across the parietal lobe, an important factor in tracing the association or projection fibres passing from the cuneus.

J. G. KIERNAN.

TUMOR OF CEREBRAL PEDUNCLE, WITH UNILATERAL TREMOR.—*The Medical News* has an extract of an article by Bloch and Marinesco. Case was one which during life presented left-sided tremor indistinguishable, graphically or clinically, from tremor of paralysis agitans. Death took place from pulmonary tuberculosis. At autopsy a tubercle as large as an olive was found in the midst of the right crus cerebri. Tumor occupied a large portion of the locus niger; did not involve the crusta, the superior cerebellar peduncle, or fibres of the oculo-motor nerve. There was neither ascending nor descending degeneration. In explanation of the tremor, irritation of the pyramidal fibres is suggested.

B. M. CAPLES.

DIAGNOSIS OF CEREBRAL LESIONS.—Branchi reported on this subject at the Fifth Congress of Italian Physicians. He paid especial attention to the sensory and special sense centers, the localization of which is still in doubt. He does not agree with Munk that the various sections of the retina are in relation to definite parts of the occipital lobe. Neither does he agree with the localization of the olfactory center in the gyrus hippocampi. He reaches the following conclusions; (1). The only functional disturbances which accurately indicate a focal lesion are those of motion, sight and hearing. (2). The Rolandic convolutions undoubtedly represent the central motor zone of the opposite half of the body. (3). The cortical center for sight has a large area in man as well as in animals. In man it covers the entire occipital and lower parietal lobe. (4). A lesion of a part of this extensive center causes homonymous bilateral hemianopsia, or more rarely, a contraction of the visual field or a segmental defect. These symptoms do not, however, permit any definite location of the lesion in the area of the optic center. (5). Psychological blindness and optic aphasia indicate the location of the lesion more definitely. The presence of psychological blindness justifies the assumption of a bilateral lesion in the anterior part of the occipital lobe and posterior part of the angular convolution. Optic aphasia indicates a lesion in the anterior part of the angular gyrus, especially where it passes into the temporal convolution. (6). Anosmia and ageusia do not indicate a definite location of the lesion, but justify the presumption of a lesion of the gyrus hippocampi or anterior part of the gyrus fornicatus. (7). Disturbances of common sensation (tactile and pain sense) do not allow of any conclusion as to the location of the lesion in the cortex or in the subcortical portions of the brain; neither do they furnish any additional information if associated with motor symptoms. (8). Bianchi's experiments upon monkeys show that destruction of the upper part of the frontal lobes produces no permanent disturbance, except disturbance of vision, which passes off slowly. The lesion does, however, produce pronounced psychological disturbance, showing itself in incoherence of movements, apathy, want of emotion and sociability, weakness of the sexual instinct, increased mental excitability and fear, want of usual reflection and ideation. (*Wien Med. Wochenschr*, Nov. 1893.)

G. J. KAUMHEIMER.

SALIVATION IN LESIONS OF THE FRONTAL LOBE.—Troje reports a case of infiltrating cancrroid, which necessitated the removal, with other structures, of the lower part of the

second and third frontal convolutions on the right side. Considerable brain matter was lost later on account of a hernia cerebri. No psychical symptoms followed the operation, but a profuse salivation, which had lasted, at the time of the report, two and one-half months. Atropine had diminished but not stopped it. Troje calls attention to the salivation of microcephalic subjects in whom the lower frontal convolution is rudimentary and to that observed in psychoses. (*Deutsch. Med. Wochenschr.*, No. 44, 1893.)

G. J. KAUMHEIMER.

EYE-SYMPTOMS IN CEREBRAL SYPHILIS.—Uthoff, who is well known for his reports on the eye-symptoms of nervous disease, has observed 100 cases of cerebral syphilis, of which 17 were submitted to autopsy. One of these 17 presented a gummous iritis; another a irido-choroiditis with arterial changes in the retina. In 12 other cases, vascular changes in the brain and at the base were present; choked disc was found in 3 cases; a gumma of the nerve once; meningitis with thickening, once; and changes in the nerve sheath, once (unilateral choked disc.) The changes in the nerve trunk seem to affect the cranial portion most, stopping at the foramen. The gummata probably originate in the nerve itself. Concentric contraction of vision was frequently observed. The chiasm seems to be a favorite seat of gumma, as four cases of temporal hemianopsia were observed, caused by gumma surrounding the chiasm. The optic tract was less frequently involved. The oculomotor nerve was involved oftener than the other motor nerves, six times on one side, twice on both. The cause is to be found in its course, the nerve being involved by contiguity, although its nucleus shows a predisposition to become the seat of gumma. Abducens paralysis was found twice, affection of the trifacial three times, disturbances of smell twice, and disturbances of hearing twice. (*Deutsch. Med. Wochenschr.*, No. 13, 1892.)

G. J. KAUMHEIMER.

IMPLICATION OF THE CENTRAL NERVOUS SYSTEM IN TYPHOID FEVER.—Eisenlohr reports three cases of severe typhoid fever in which the muscles of articulation and mastication, as well as those supplied by the fifth nerve, were paretic. In one case these symptoms showed themselves in the first week, in another in the fourth week, and in the two which recovered, continued well into convalescence. The trouble was not coincident with the typhoid stupor. In one case optic

neuitis, in another hyperaemia of the papilla was noted. Numerous pyogenic cocci were found in the brain of the case which ended fatally. To these Eisenlohr attributes the nervous symptoms. [*Über e. eigenthüm. Symptomencomplex bei Abdominal-Typhus.*] (*Deutsch. Med. Wochenrsch.*, No. 6, 1893.)

G. J. KAUMHEIMER.

THE DIAGNOSTIC VALUE OF HERPES LABIALIS IN CEREBRO-SPINAL MENINGITIS.—The general consensus of the text-books is that herpes labialis occurs in about half the cases of epidemic meningitis, but is very rare in tubercular cases. Consequently the presence or absence of the eruption in a given case may be of considerable diagnostic value, although we do not know the exact weight it should have in a case in which all the other symptoms point to a tuberculous origin. F. Klemperer reports three cases of tubercular antecedents in which the herpes was noted. Two recovered, and in the third the autopsy showed that the meningeal inflammation was not tubercular. From these he thinks that we are justified in diagnosing cases with herpes labialis as non-tubercular, although they may be cases of secondary infection of meninges already tubercular. From culture experiments made from 19 cases of herpes labialis he believes that the eruption represents a peculiar localization of an infective agent. (*Berlin Klin. Wochensch.*, No. 29, 1893.)

G. J. KAUMHEIMER.

BACTERIOLOGY OF PURULENT MENINGITIS.—Dr. Carl Zörkendorfer (*Prag. Med. Wochenschr.*, No. 18, 1893), after reviewing the literature of the subject and citing a case, with results of culture and inoculation experiments, concludes as follows: 1. The well-known fact that in the majority of cases purulent meningitis is caused by Fränkel-Weichselbaum's diplococcus-pneumoniae, is substantiated by another case. 2. The diplococcus-pneumoniae must also be considered the cause of the purulent inflammation found in the sphenoidal sinuses. 3. In the absence of any other source of infection, an invasion of the meninges by the diplococci in the sphenoidal sinuses, must be assumed. 5. Microscopical examination excludes infection by way of the circulation, hence the invasion of the diplococci was possible only through the lymphatics or by penetrating the osseous barrier, notwithstanding the fact that the latter appeared normal, microscopically.

R. W. ROHRDANZ.

TABES AND BASEDOW'S DISEASE.—Dr. Pierre Marie and G. Marinesco have (*"Revue Neurologique,"* 1893, p. 240.) in a certain case found incipient lesions of tabes with bulbar alterations, atrophy of the solitary fasciculus, atrophy of the ascending root to the trifacial. In future autopsies examination of these parts and the pneumogastric nucleus should be made as the Möbius hypothesis of thyroid body alteration does not suffice as a pathological explanation of the disorder.

J. G. KIERNAN.

EARLY DIAGNOSIS OF TABES BY LARYNGOSCOPIC EXAMINATION.—Grabower, at a meeting of the Berlin Medical Society, exhibited a patient, 41 years old, who had come to him fifteen months before complaining of painful sensations in the region of the umbilicus, roaring noises in the head, insomnia and fatigue on slight exertion. The only other symptom demonstrable was enlargement and paralysis of the left pupil and diminished reaction of the right pupil to light. Laryngoscopic examination showed paralysis of the right posterior crico-arytenoid muscle. From this Grabower made a diagnosis of tabes (probably). Three neurologists made a diagnosis of neurasthenia, internal ophthalmoplegia and "beginning dementia paralytica." Later the patient showed delayed conduction for sensation as well as some degree of analgesia. Some ataxia of the hand was also now present. Within the last six weeks the knee reflex had almost entirely disappeared on the right side. An examination of the larynx should be made in all doubtful cases, as only two cases are reported in which a paralysis of laryngeal muscles was found before the diagnosis of tabes was evident, and this symptom may exist for years before another becomes evident.—(*Berlin Klin. Wochensh.*, Nov. 21, 1893.)

G. J. KAUMHEIMER.

TABES AND DIAPHRAGMATIC PARALYSIS.—Gerhardt gives as causes which have been demonstrated in diaphragmatic paralysis, (1) pronounced muscular atrophy; (2) plumbism; (3) hysteria; (4) inflammatory paralysis; (5) pressure of intra-thoracic neoplasms on the phrenic nerves; (6) diphtheritic paralysis; (7) multiple neuritis. He has been unable to find a case of diaphragmatic paralysis accompanying tabes dorsalis in literature, but gives the history of such a case. The tabetic symptoms were of six years' duration. The symptoms referable to the paralysis are stated as follows: In quiet respiration, the level of the diaphragm is at the level of the sixth rib in the nipple line. There is no respiratory motion of the

epigastrium and the flanks are moved but little, but are occasionally drawn in on deep inspiration. If the patient arches the back strongly and takes very deep inspirations, the lower edge of the thorax and epigastric region expand visibly. In the erect posture the level of the diaphragm descends somewhat. Strong pressure over the stomach causes an ascent of the diaphragm to the extent of a rib and an intercostal space (3.5 cm.). Slight pressure on the epigastric region abolishes all diaphragmatic motion. Faradization of the phrenics has but little or no effect. Gerhardt attributes the paralysis to the implication of the origin of the phrenics in the tabetic process. (*Berlin Klin. Wochensch.*, No. 16, 1893.)

G. J. KAUMHEIMER.

NEURITIS AND MYELITIS AND THE FORMS OF PARALYSIS AND PSEUDO-PARALYSIS FOLLOWING LABOR.—Dr. C. K. Mills has an interesting article on this subject in the May number of the *University Medical Magazine*.

The first part of the article deals with the literature of the subject quite fully. The affections to which Dr. Mills specially directs attention in the article, are comprised under the five following heads:

1. Traumatic paralysis of the peroneal type, usually associated with severe neuritis.
2. Sacral and sacro-distal neuritis, sometimes accompanied by a pseudo-paralysis, and often maintained or aggravated by disease and displacements of the pelvic organs and tissues.
3. Puerperal neuritis, local or multiple, and due to septic or other infection.
4. The neuritis, paralyzes, and pseudo-paralyzes of phlebitis and phlegmasia alba dolens, which are often septic, but have special features.
5. Puerperal myelitis occurring under the same conditions as the forms of septic and infectious neuritis.

The first case reported is that of peroneal paralysis with anesthesia, neuritis following prolonged labor. There was recovery from neuritis, but persistence of paralysis. There was history of specific trouble. A number of cases similar to this are reported.

Concerning the extension of this form of paralysis from one limb to the other, the doctor makes some very interesting observations. He says:

A study of these facts of the table shows that the movements paralyzed in these cases of puerperal traumatism are those of the muscles supplied by the peroneal or external popliteal nerve, and that these movements have their representation chiefly in the fourth and fifth lumbar, and the first

sacral segments of the cord, where the lumbo-sacral cord and first sacral nerve evidently arise.

It is a fair question whether the spinal cord does not become secondarily diseased by extension of the inflammation backward along the great nerve cords assaulted. The paralytic, trophic and vasomotor phenomena presented by some of the cases are difficult to distinguish from the conditions due to a complete crushing of a large nerve root or cord.

While a complete crushing of the lumbo-sacral cord and of the upper sacral nerves would account for a long and persistent palsy of the muscles supplied by these nerves, it is not unlikely that the neuritis in some of these cases not only extended and diffused itself throughout the extremity, but has ascended and entered the cord, and attacked the ganglion cells of the cornua, giving us, in a word, a neuro-myelitis.

In connection with this point the method of the extension of the inflammation from one limb to the other is of interest. This occurs after a longer or shorter time; the two limbs are not coincidentally affected with the inflammation. It is probable that the inflammation extends not in the pelvis nor by way of the cord proper, but rather by the cauda equina, spreading sidewise from one closely apposed nerve or nerve-sheath to another.

First. Sacral and Sacro-Distal Neuritis Without True Paralysis, Although Sometimes Accompanied by Partial or by Pseudo-Paralysis.—Under this head and preliminary to the presentation of notes of cases, the writer observes: During labor, especially when prolonged, and sometimes even during the last stages of pregnancy, as the result of friction and pressure, a lumbo-sacral neuritis of varying intensity arises, and may continue for a longer or shorter time, according to the constitution of the patient, the state of the uterus and other pelvic organs, and the course which is pursued in the management of the patient. Some of the cases which are alluded to by Dr. Fullerton, as instances of short-lived partial paralysis, are doubtless of this class, as, for instance, the one of which brief notes have been given in the introductory portion of this paper. This woman suffered great pain in the groin and limb, and was unable to move the latter, and pressure on several nerve trunks caused much suffering. In three weeks, however, she was practically well, the pain and paresis having disappeared in ten days. Every general practitioner will have in mind some case of this character, which has recovered under rest, and which rest has been compelled by the patient's suffering as much as by the advice of the doctor; or has recovered without rest or treatment through the robust recuperative powers of the individual; but not a few patients of this class are practically neglected, all the

conditions present not being fully recognized, and the treatment, as a rule, not being sufficiently painstaking and thorough.

Altogether similar in their symptomatology are some cases, which appear to have no immediate connection with the processes of pregnancy or labor, but are due to the irritation which is maintained by the nagging of an enlarged or displaced uterus, or by disease and enlargement of the ovaries and tubes, or by inflammatory processes in the pelvis, no matter how they may have originated. I wish, however, especially to direct attention to a set of cases which seem to date back to a particular labor, although they have evidently been aggravated and perhaps continued by conditions which may or may not be associated with the puerperium. I could give notes of many minor, although sufficiently troublesome, cases of this description.

Second. Puerperal Neuritis Due to Septic or Other Infection.

—In a third class of cases, puerperal neuritis, isolated, diffused, or multiple, and probably infectious in origin, is present. A few writers have reported cases of multiple neuritis shortly after normal labor. Auto-infection has been suggested as the best explanation. Some of these cases occur during pregnancy, thus indicating their non-traumatic origin. In some the neuritis and consequent paralysis has been in part or chiefly in the upper extremities, as in cases reported by Möbius and Kast. The symptoms present need not be detailed; they are in brief those of neuritis, local, diffused or multiple; pain, hyperesthesia, paresthesia, paralysis or pseudo-paralysis; sometimes anesthesia; often changes of the reflexes; cramps and contractures, and occasional atrophies and reaction of degeneration. Usually these cases occur in the first, second or third weeks after labor, but they may follow immediately or at a later period than three weeks. Theoretically no good reason exists why, as the result of infection either from without, or perhaps from within, any form of puerperal neuritis may not occur, and it is of some practical importance to separate traumatic cases from those which have a septic or infectious etiology.

Third. Neuritis and Paresis Associated with Phlegmasia Alba Dolens.—Neuritis, and the partial paralysis of phlebitis and phlegmasia alba dolens, can be conveniently discussed as a separate class, although perhaps they might be included under other heads given.

Patients suffering from phlegmasia alba dolens are, of course, more or less helpless and paretic during the progress of the affection; but, in addition, it sometimes leaves forms of paralysis and pseudo-paralysis. Doubtless a true neuritis

is often present in phlegmasia, either as a result of the spread of inflammation by contiguity, or because of pressure and interference with the nerve trunks. A form of atheromatous neuritis is now recognized, and has been described by Gowers as a variety of the senile form of multiple neuritis; and it is held that in this disease the nerves of the limbs have been extensively damaged through the obliterating arteritis, necrotic inflammatory processes going on in the parts of the nerves supplied by the affected vessels, either arteries or veins. These processes may or may not result in occlusions, and are frequently accompanied by a true neuritis, which is the origin of most of the pain. In phlegmasia, likewise, a true neuritis may set up; and this may in part persist after other symptoms and conditions have subsided, or nerve degeneration may take place as the result of the neuritis, or of the pressure exercised on the nerves by the swollen and indurated tissues. Even the gangrene, in which phlegmasia sometimes terminates, has been regarded as in part at least neutro-trophic rather than altogether due to interference with the circulation. Finally, a patient suffering from phlegmasia may at the same time, or as a sequel of the affection, develop a septic, pyemic, or infectious myelitis of the transverse or some other variety, which will give rise to marked and, it may be, incurable paraplegia. Winckel quotes Mauriceau, Boer, Casper and Gittermann as reporting a greater or less degree of paralysis of the affected limb as left over by phlegmasia. Dr. Anna M. Fullerton has furnished me with some notes of several cases of this character, patients who have been confined to their homes without proper antiseptic surroundings and attendants, and have come to the hospital for treatment. She believes that inflammatory and septic complications are responsible for this class of cases; in them she has found extensive lesions, often of the soft parts, due to injuries occurring during birth, which have left open surfaces for the absorption of the poison.

The writer also refers briefly to hysterical and reflex paralysis. It is said that any form of hysterical paralysis may occur during the puerperium. The reflex theory does not receive much credit from the author. He thinks it more probable that the paralysis in such cases is due to actual transmission of the inflammatory process by ascent to the cord, or to septic or infectious poisons in the blood. The doctor makes some interesting observations in regard to the treatment of these cases.

ON THE COMBINATION OF ACUTE MYELITIS AND OPTIC NEURITIS.—Degenerations of the optic nerve in the course of chronic affections of the spinal cord are not at all rare. A few cases of optic neuritis have also been reported following injuries of the cord. Schanz reports the case of a young man of 18, who developed an optic neuritis, which advanced to complete amaurosis within a week. At that time no other derangement could be found upon the most minute examination. Salicylates being without effect and the patient showing some slightly enlarged glands, he was put on specific treatment, although there was no history or other symptom of syphilis. A few days after this he developed the symptoms of a transverse myelitis of the mid-dorsal region. This advanced to almost complete paralysis of motion and sensation in both lower extremities and retention of urine. The paralysis began to improve after a fortnight, and after the amaurosis had lasted ten days perception of light returned. The mercurial inunctions and iodide of potassium were continued, and within two months from the onset of the neuritis the patient was practically well. The author has succeeded in finding four similar cases in ophthalmological literature. Two of these were submitted to autopsy and showed degeneration of the cord and inflammatory changes in the optic nerve. In all the cases the eye symptoms preceded the spinal symptoms and in those which did not die the recovery was complete. (*Deutsch. Med. Wochensch.*, No. 26, 1893.)

G. J. KAUMHEIMER.

SYPHILITIC SPINAL PARALYSIS.—Oppenheim takes issue with Erb in regard to the latter's claim that there is a form of spinal syphilis which is so pathognomic that the diagnosis of syphilis can be made from the nervous symptoms. He claims that the symptomatology as given by Erb does not belong to a disease per se, but belongs to a stage or a certain localization of a disease already known. This disease is, according to Oppenheim, the ordinary form of spinal syphilis. Erb himself has not seen many autopsies on these cases, but states that the pathology must be cleared up by specimens, "which a lucky chance has furnished at the right stage." Oppenheim believes that Erb was misled by the large number of patients who consulted him in the pre-paretic stage. (*Berlin Klin. Wochensch.*, No. 35, 1893.)

G. J. KAUMHEIMER.

CONCUSSION OF THE SPINAL CORD.—Dr. Carl Gussenbauer reports the following case, under observation for one and one-half years: Patient, male, aged 30, while standing on the

platform of a tramway wagon, stooped, slipped and was struck in the back by the moving wagon. Was unconscious fifteen minutes; complained of pain in the loins, increased by movement of extremities. Pressure on 11th and 12th dorsal vertebræ painful; no crepitus or preternatural mobility. Was unable to stand. Half hour later there was paræsthesia of scrotum and lower extremities. Cutaneous sensibility on left half of abdomen, on scrotum and both posterior thigh surfaces markedly diminished. Left leg paralyzed; patellar reflex and ankle clonus much exaggerated. Could move toes; right leg paretic. Temp., 38°C . Second day—Morphine injection necessary to control pain. Bladder and rectum paralyzed. Temp., $3^{\circ}.2^{\circ}\text{C}$. Third day—Less pain. with return of cutaneous sensibility of right leg; improvement on left side. Temp., 38.5°C . Voluntary micturition. On 16th day had voluntary bowel movement. Discharged on 27th day. Two months later, still had slight pain in left leg. At present, one and one-half years after injury, can walk for an hour; sensation in left upper thigh still defective; pressure in this region causes pain. Dr. Gussenbauer analyzes the symptoms as follows: Loss of consciousness, occurring after the mechanical effect of the blow had passed off, could not have been a direct result of the injury. It was either a result of concussion of the cord, of a reflex effect of pain, or of a psychical shock. The late manifestation of symptoms, and the gradual increase and successive but unequal abatement of the same, indicate a transverse lesion of the cord, caused by hæmorrhage. Hæmorrhage from the spinal venous plexus, necessarily extra-dural, must be excluded in the absence of bone lesion and compression. The motor impulse, resulting from the concussion, was transmitted to the liquor spinalis and produced motion in an opposite direction to that of the fixed vertebræ and cord on account of the low specific gravity and tension of the liquor spinalis compared with the venous blood. A succession of such antagonistic movements produced a successive increase and decrease of tension of the liquor spinalis in the sub-arachnoid space—a mechanism which seems well adapted to cause laceration of the delicate vessels of the pia. Multiple and disseminated small hæmorrhages may not produce spinal symptoms; an increasing hæmorrhage will cause lesions, but requires some time, as in this case. The resorption of the multiple and unequal extravasations explains the successive abatement of the symptoms. Gussenbauer regards the observations in this case of great importance in the diagnosis of railway-spine and other cases of concussion of the spine, and concludes that it is not the concussion itself but the

lesions of the cord produced by extravasation of blood which causes the spinal symptoms, and that the degree and extent of extravasation determines whether a traumatic myelitis with its sequela or a *restitutio ad integrum*, will follow. (*Prag. Med. Wochenschr.*, No. 40, 41, 1893.)

R. W. ROHRDANZ.

EPILEPSY DUE TO HEART DISEASE.—Dr. Rosin reports the case of a woman who, after forty-nine years of good health, suffered for thirteen years from paroxysmal attacks of tachycardia due to degeneration of the myocardium. Three years after the first symptoms of heart disease, she had a typical epileptic seizure, followed by seven others in the next ten years, all nocturnal, the last proving fatal. After referring to twelve similar cases in literature, the writer summarizes as follows: 1. Diseases of the heart and large blood vessels may cause epilepsy. 2. Before assigning the cause to heart disease, all other possible ætiological factors should be excluded. 3. Heart epilepsy may be a complication of all forms of heart disease, but arterio-sclerosis and degeneration of the myocardium are particularly frequent causes. 4. It is due to a disturbance of nutrition of the brain, especially the motor areas, resulting from impaired circulation, and must be classed with that group of epilepsies due to circulatory disturbances. When both heart and vessels are diseased, it is still undetermined whether diseased cerebral vessels play a part. 5. An individual predisposition, not understood, also seems to be a potent factor in bringing about this complication, because the latter is relatively rare in heart disease. 6. Sleep favors the production of an attack. 7. Therapeutically, digitalis and bromides are of value. (*Wien. Med. Presse*, No. 43, 1893.)

R. W. ROHRDANZ.

PERIODIC SLEEP SEIZURES OF EPILEPTIC NATURE.—Under the designation narcolepsy are classed all cases in which from whatsoever cause an imperative and irresistible somnolence occurs suddenly and recurs after more or less short intervals. Dr. G. W. Jacoby (*N. Y. Med. Journal*, May,) believes that many of those cases considered hysterical are epileptic and worthy of attention because of diagnostic difficulties they present and medico-legal complications to which they lead. He objects to the compound designation hysterio-epilepsy, while he grants that epileptic patients have hysterical attacks, he prefers to designate them as epileptic or hysterical. Some epileptics sleep after attacks, others do

not and still others are irregular in this regard, but the author maintains that it is not generally known that attacks of sleep constitute the chief symptom in many cases. He cites cases which have come under his observation, in which the only premonitory symptoms were congested faces and contracted pupils, the epileptic convulsions being absent. One case was that of a barber, 35 years old, who ten years previously had in a short time become quite corpulent, weighing 250 pounds, since that time he had frequent short sleeping attacks. Author thinks there is a connection between the corpulence and sleep attacks; not that the attacks are due to corpulence, but that corpulence is a state of perverted nutrition due to a pathological condition in the psychic centers. The explanation of cause of epileptic sleep on assumption that there is a sleep center in medulla is not accepted by Dr. Jacoby; he considers epilepsy a disease of brain cortex, caused by temporary affections or abolition of central processes of inhibition. He remarks that it is probable that the clinical pictures of all epileptic phenomena are modified by the topical distribution of this inhibitory interference; that epileptic vertigo is due to disorder in cerebral hemispheres, and the typical convulsion is dependent upon an extension of the disorder to medulla and convulsive center here situated, or to the cortical centers. Therefore he feels warranted in classing these cases of epileptic sleep as cases of psychic epilepsy and in attributing their causation to disorder of these psychic centers. From a medico-legal standpoint the necessity of carefully searching for corroborative data of an epileptic character in all dubious cases in which amnesia is alleged. Dr. Jacoby's diagnostic conclusions—Sleeping attacks appearing alone or in combination with other symptoms if of brief duration and followed by amnesia are probably epileptic in character; if somnambulism, particularly of a noisy kind, is present this probability becomes a certainty.

T. W. BISHOP.

EPILEPSIA TARDA.—Mendel (*Deutsch. Med. Wochensch.*, No. 45, 1893,) reaches the following conclusions: (1). It is probably advisable to classify cases of epilepsy originating after the fortieth year as *epilepsia tarda*. (2). *Epilepsia tarda* is absolutely and relatively more frequent in the male. (3). Hereditary predisposition plays an important role in the etiology of late epilepsy. (4). The course of these late epilepsies is, in general milder and rarely so progressive as most cases of youthful epilepsy. (5). The mental functions seem to suffer less in this form, even after a prolonged duration, than in younger patients.

G. J. KAUMHEIMER.

THE ETIOLOGY OF FRIEDREICH'S ATAXIA.—While there is practical unanimity of view as to the clinical history of the disease described by Friedreich and known by his name, or in consequent of deficient knowledge, as hereditary ataxia, there is some diversity of opinion of the pathologic basis of the disorder. The prevalent view is that the symptoms depend on sclerosis of the posterior and lateral columns of the spinal cord, though the factor of heredity is as often absent as present. Senator reports a typical case but dissents from the current view of its pathology. He presents facts and advances arguments to show that the symptoms are to be referred to the congenital defect of development of the cerebellum to which the changes in the posterior and lateral columns may be secondarily added but are not essential.—(*Medical News*, June 24.)

B. M. CAPLES.

FRIEDREICH'S ATAXIA.—In some remarks made on the occasion of the demonstration of a case of this disease, Senator expressed the opinion that it was due to a congenital atrophy of the cerebellum, based upon family predisposition and probably accompanied by a similar atrophy of the cord and medulla.

He cannot accept the theory that the disease is a combined system degeneration, as the clinical picture furnished by these conditions is not at all that of pure hereditary ataxia, although the anatomical lesions are so distributed that these symptoms can be expressed thereby. This view is supported by five autopsies. All the symptoms can be explained by assuming the existence of a cerebellar atrophy. Menzel and Nonne have each reported cases of cerebellar atrophy, in which the symptoms were those of Friedreich's disease. Considering the exceedingly protracted course of this disease, it cannot be considered strange that secondary degenerations of the cord should be associated with it, as well as that this degeneration should involve those tracts anatomically or functionally, in connection with the cerebellum. (*Berlin Klin. Wochens.*, No. 21, 1893.)

G. J. KAUMHEIMER.

MICROBIC ORIGIN OF CHOREA.—Dr. Dana read the history of a case of chorea, with autopsy. The patient was a man of 26 and had chorea since 15 years of age. The attacks came exactly like those of the ordinary chorea of Sydenham. At first there was intermission but the disease finally became chronic. The spasmodic movements were general and

violent. There was no heart disease or rheumatism. The patient died from exhaustion. Autopsy showed macroscopically conspicuous chronic leptomeningitis involving the vertex of the brain. Microscopically this was found mainly to be a proliferation process without exudation or much cell infiltration. In superficial layer of cortex there was cellular infiltration and degenerative changes. At this point a diplococcus was found. Full details were given of this by Dr. Brooks, the bacteriologist. The micro-organisms were found only in the deep layer of the pia and superficial part of cortex, less numerous in basal ganglia. There were evidences of meningeal irritation, vascular disease and nerve root irritation in the medulla and upper part of the cord. The lower part of the cord was not examined. (*Med. Record*, Aug. 12.)

B. M. CAPLES.

CASE OF ACROMEGALY.—Archibald Church, M. D.: Patient, man 40 years; first noticed disproportion of hands when a boy, soon disproportion sufficient to attract attention; contracted syphilis at 30 years; had mucous patches and warts about genitals and arms; denies having had skin eruption, alopecia, sore throat or iritis; appetite voracious; sexual desire and ability retained; steady thirst; of recent years subject to fits of melancholia, at times "befuddled;" sleeps much, dozes often; gait steady and co-ordinated; features very coarse; forehead receding; superciliary ridges and frontal sinuses enormously developed; malar bones prominent; eyelids thick and heavy; nose enlarged, broad, nostrils large; brows massive; lower jaw heavy and massive; lips thick; tongue broad, thick, reaches almost to point of chin when protruded; voice harsh, low, guttural; thyroid diminished in size; few warty growths on side of neck; wrists slightly thickened, but hands uniformly and symmetrically enlarged; integument on palmar surface thick, inelastic; fingers "sausage shaped;" feet enlarged similarly to hands. Skin: tertiary syphilitic eruption distributed symmetrically over trunk and extremities, consisting of atrophic pigmented scars. Blood shows hæmoglobin 95 per cent. of normal; 7,000,000 red corpuscles to c. mm.; proportion of white to red 1—400. Numerous theories have been propounded as explanatory of this condition. Marie thought that involvement of pituitary body was essential feature. Klebs maintained that persistence of thymus gland was of utmost significance. Virchow believes that acromegaly is merely the terminal stage of a condition, the early periods of which are not yet recognized. Others affirm that the disease is neurotic, depending upon presence in blood of poisonous products, which result in dystrophy and

which normally are eliminated by pituitary. Dr. Church believes the disease a very near relative of cretinism and myxœdema, and proposes to treat it with thyroid juices administered hypodermically or otherwise, other treatment having proved futile.

MEASLES PARALYSIS.—Dr. P. A. Lop (*"Gaz. des Hop,"* Sept. 14, 1893,) divides these into two varieties: The encephalitic type which makes its onset with acute encephalitis and terminates by lobular cerebral sclerosis. The second type, the myelopathic paralyses, are the most frequent.

J. G. KIERNAN.

SYPHILITIC NEURASTHENIA is, Dr. Fournier (*"Gaz. des Hop,"* Sept. 5, 1893,) states, a not uncommon complication of lues. Lues, much more than any other disorder can produce neurasthenic symptoms. It is a depressing, debilitating disorder which, as Ricord says, "Shakes up the whole organism. It startles and affrights." Dr. Fournier has seen robust, vigorous, energetic men sob, falter and become ill at the discovery that a slight ulcer was an indurated chancre. The neurasthenia of secondary syphilis is a frequent type. At the fourth or fifth month after the primary lesion a true storm sets in. It is the secondary nervosism of the old syphilographers. Susceptibility becomes extreme, there is an intense headache and generalized neuralgic pains. There are sensory disorders, anæsthesias, hyperæsthesias, paræsthesias, eye and ear disorders. There are flashes of heat and chills alternated. The chill may express itself in deficient capillary circulation of the extremities. Vertigo, syncope and allied symptoms occur. Hysteroid symptoms often appear. Tertiary neurasthenia may also occur.

J. G. KIERNAN.

RHEUMATISM OF THE NERVOUS SYSTEM.—Dr. H. M. Lyman, in a paper read before the American Neurological Association, states that the masked forms of rheumatism chiefly affecting sensation are not commonly recognized and are frequently ascribed to other causes. They are usually observed in elderly people of a nervous temperament and an arthritic diathesis, and differ from many other similar disorders of sensation in being transient, vagrant and of brief duration. Among these ailments is a universal prickling over the surface of the skin; sometimes it is limited to certain points, where the patient experiences a sudden sharp prick, like a flea bite.

This may interfere with or delay sleep. Another disorder of cutaneous sensation often affects the scalp, and is occasioned by irritation of the superficial nerves of that region. The duration of the attack rarely exceeds a single day. Closely associated with these disorders are the various transient perversions of sensation that may be felt in the Eustachian tubes, the pharynx, and about the fauces. Another of the symptoms of masked rheumatism is a peculiar and disagreeable feeling in the tongue. This sometime assumes the severity of a genuine neuralgia, and manifests a greater degree of persistence when associated with obesity, diabetes or gout, than when connected with rheumatism alone. The œsophagus and fauces, and sometimes the muscles of the eyeballs are similarly affected. These patients are also attacked by a paroxysmal cough associated with headache. The most distressing of all these forms of pain is gastralgia. The previous history and the concurrence of other rheumatic symptoms of a more stable character will, of course, add greatly to the certainty of the diagnosis. (*Chicago Med. Standard*, Oct.)

ERYTHROMELALGIA.—A. Eulenberg (Berlin) reported three cases of this very rare affection, at a recent meeting of the Society of German Naturalists and Physicians:

Case I. Female, aged 30, of neurotic family, formerly chlorotic, recently confined, developed erythromelalgia of the upper extremities, complicated by dystrophy of muscles of the shoulder and upper arm—a form of Erb's juvenile dystrophy. Condition improved by sea-baths.

Case II. Female, aged 45, neurotic and subject to congestion of the brain; possible etiological factors are worry, emotional disturbances and chronic indigestion. Erythromelalgia developed typically. Occasionally patient has violent headache, vertigo, vomiting, staggering gait, disturbance of speech, amnesia and hallucinations. Ophthalmoscopic examination revealed hyperæmia of the optic papillæ; a few months later recent and old retinal and choroidal hæmorrhages.

Case III. Tailor, aged 54. Mother claims to have had same disease in her feet. Had severe malaria for several years. Some time ago erythromelalgia of the left hand and right foot followed a severe cold. No other nervous disturbance. Pain in extremities relieved somewhat by electricity. Eulenberg classes erythromelalgia with syringomyelia, Morvan's and Raynaud's disease, all characterized by sensory, trophic and vaso-motor disturbances, and affecting especially the terminal parts of the extremities, usually symmetrically. The functionally or materially altered sites of

these affections are the columns of Clark and the solitary cells in the posterior horns, causing the sensory disturbances and the cells of the intermedio-lateral tract, especially well developed in the dorsal cord, causing the vaso-motor and secretory disturbances. The intensity and extension of the primary disturbance and the tendency of the lesion producing the same to either stimulate or arrest the function of the affected centers, will cause the above named and other more or less similar affections. (*Wien. Med. Presse*, No. 38, 1893.)

R. W. ROHRDANZ.

ARTHRITIS GLIOMATOSA.—Only twenty cases of joint disease in gliomatosis of the cord have been reported. Within the last year Sokoloff has reported three and Nissen two new cases. Weil reports the case of a man of 52 who had had analgesia for thirty years as well as numerous painless felons. An enormously swollen left shoulder joint caused him to seek advice. The joint was relaxed and the joint surface was enlarged and covered with exostoses. Motion was greatly restricted. Temperature and pain sense were reduced or abolished over the left half of the body above the seventh dorsal vertebra, as well as over the right arm below the elbow. Electric reactions, reflexes and tactile sense were normal. Improvement in the shoulder joint took place, after aspiration, under a moist compressive dressing. The left elbow was also swollen. There was decided scoliosis, with the concavity to the right. The localization in the upper extremity is characteristic of a gliomatous arthropathy, as the tabetic joint affections in 80 % of the cases involve the lower extremities, according to Rother. The analgesia, thermanæsthesia and scoliosis are also pathognomic. Weil believes that the scoliosis found in half the cases of syringomyelia is due to disease of the vertebræ and not to muscular weakness. (*Wien. Med. Blætt.*, No. 7, 1893.)

G. J. KAUMHEIMER.

ACUTE REGRESSIVE MUSCULAR ATROPHY.—RAPID RECOVERY AFTER BIRTH OF CHILD.—Adamkiewicz reports the case of a woman in the eighth month of her third pregnancy. She had suffered severely from vomiting and was compelled to take to her bed at the third month. The muscles of the head, neck and shoulders were intact, but below this, respiration was the only manifestation of muscular activity. She could not lift a spoon to her mouth. The muscles of the arms, fore-arms and lower extremities were atrophic to the last degree, but were excitable electrically. In due time she was delivered after a labor of half an hour's duration. Hardly had labor

ceased when the contracted muscles relaxed. On the fifth day she was able to sit up in bed; on the eighth day she stood on her feet and in three weeks was able to walk. She ultimately made a very complete recovery. The author believes the atrophy to have been due to the minimum amount of food ingested and to reflex impulses of unknown nature, originating in the pregnant uterus. This last was demonstrated with the precision of a physiological experiment. (*Prag. Med. Wochensch.*, No. 2, 1893.)

G. J. KAUMHEIMER.

EXOPHTHALMIC GOITRE IN MOTHER AND CHILD.—Kronthal reports the case of a girl at 12 who had the disease in a moderately severe form. While examining the child a decided exophthalmos was noticed in the mother. Examination showed also an accelerated and irregular pulse. The symptoms in the mother had existed about two years; in the daughter about seven or eight months. A number of instances have been reported in which relations suffered with this disease, but only twenty-six cases are on record of Graves' disease in children. (*Berlin Klin. Wochenschr.*, No. 27, 1893.)

G. J. KAUMHEIMER.

THE MUTUAL RELATIONS OF TETANY, RICKETS AND LARYNGEAL SPASM IN CHILDHOOD.—Kassowitz, after extensive investigations, reaches the following conclusions: (1). Laryngeal spasm is found almost exclusively in children who present unequivocal symptoms of active rickets. (2). In the greater number of these children soft spots can be found on the skull (craniotabes), in the remainder the delayed closure of the fontanelles or characteristic deformity of the cranial bones furnish evidence of the disease. (3). Laryngeal spasm is observed almost exclusively in the age at which rickets is developed. (4). The laryngeal spasm and the related expiratory apnoea are much more common in winter and early spring, at which time we find rickets occurring with greatest frequency and intensity. (5). Besides the respiratory spasms, we find in children with active rickets a train of symptoms which indicate a disturbance of psychical, motor and secretory nerve-centers, or of the entire nervous system. (6). The frequency of the observed nervous disturbances in rickety children seems to be (in decreasing ratio): (a) Insomnia, localized sweating of the head, starting at slight sounds; (b) mechanical hyperexcitability of the facial nerve; (c) expiratory apnoea and spasm of the glottis; (d) general-

ized convulsions; (*e*) generalized hyperidrosis; (*f*) Trousseau's phenomenon; (*g*) spontaneous tetany; (*h*) nystagmus and spasmodus nutans. (7). These nervous phenomena occur either singly or in the most complex combinations. (8). Spasm of the glottis and expiratory apnoea are often combined with spontaneous tetany, more often with the latent form; they may occur without these, or *vice versa*. (9). All the nervous symptoms of rickety children disappear in a remarkably short time upon the administration of phosphorus in medicinal doses. The convulsions disappear first, followed by the insomnia, the respiratory spasm and the spontaneous tetany; somewhat later, the hyperidrosis and spasmodus nutans, and last of all the hyperexcitability of the facial nerve disappear. (10). The curative influence of phosphorus is not limited by the seasons or by the mode of life. [See also *Wien. Med. Presse*, No. 4, 1893, for a paper by Loos on this subject in which he differs in some particulars from the above.] (*Wien. Med. Wochensch.*, No. 21, 1893.)

G. J. KAUMHEIMER.

TETANY OF GASTRO-INTESTINAL ORIGIN.—Ewald reports the case of a woman of 26 who had borne one child at 20. Since that time menstruation had ceased and she had a short attack of diarrhoea at the time the menses should have appeared. The diarrhoea increased later to six or seven painless movements per day. At the end of March, 1892, tetany set in and had recurred in decreasing intervals since. It was soon noticed that the tetany was present as soon as the stools became solid or semi-solid and disappeared when diarrhoea occurred. The connection was so obvious that the patient noticed it. Ewald supposes that the diarrhoea eliminated some unknown poison, which, when absorbed, caused the tetany. Analysis of the fæces was negative. Analysis of the urine demonstrated the presence of small quantities of a ptomaine. (*Berlin Klin. Wochensch.*, No. 22, 1893.)

G. J. KAUMHEIMER.

PARAMYOCLONUS MULTIPLEX.—M. Weiss reports seven new cases of hereditary myoclonus. The patients were healthy in all other respects and represented four generations of one family (four males, three females). He has analyzed the 51 cases of myoclonus reported and has found that eight must be excluded on account of insufficient clinical histories, and that 30 other cases have been wrongly classed. In 16 cases, hysteria must be taken as the basis of the spasm, either because the spasms were like hysterical spasms, excessive in nature

and could be made to disappear by psychical influences, or other symptoms of hysteria were present. Three cases must be counted as cases of chorea minor, two as *maladie des tics convulsifs*, one as an occupation neurosis and one as a myoneurotic affection. Unverricht's five cases are genetically connected with the epilepsy also present. In the remaining 13 cases the muscular contractions do not depend on an organic nervous disease, nor do they correspond to any other known motor neurosis. Hence they must be classed as a disease *sui generis*. In all of these cases there existed characteristic, continuous or paroxysmal muscular contractions, usually symmetrical, but not necessarily synchronous, in otherwise normal muscles. They cease during sleep, are increased during muscular relaxation or bodily fatigue, but are suppressed, wholly or in part, by voluntary movements. The sensory and psychical functions are usually intact, the knee jerk generally much increased. The location and character of the spasm, as to frequency, extent or duration, may vary greatly in the different cases and at different periods in the same case. Remak, Henoch, Schulze and v. Krafft-Ebing consider chorea electrica as an advanced stage of paramyoclonus. The increased mechanical and reflex excitability of the muscles, which is reported by some observers, is probably an accidental and personal peculiarity. Krafft-Ebing and Weiss have both observed the disappearance of the spasms during the febrile stage of an intercurrent affection, the spasms returning with the decline of the temperature. Weiss objects to Friedreich's theory of a chronic functional irritation of the spinal motor ganglia, and accepts Grawitz's theory of the location of the lesion in the cortical motor centers. (*Wien. Med. Presse*, No. 11, 1893.)

G. J. KAUMHEIMER.

QUALITATIVE VARIETIES OF THE KNEE-JERK.—Benedikt gives the following resumé of the qualitative variations of the knee-jerk: The first variety is the clonic jerk. A single blow on the tendon is followed by several jerks of the knee. This form is found in spinal and cerebral paralysis and spastic spinal conditions. The second variety Benedikt denominates paradox. In this the blow is followed by a movement of flexion instead of one of extension. He found this form in a case which began with cephalalgia, static vertigo and one-sided nervous deafness, which were followed by melancholic apathy. The diagnosis was "tumor of the roof of the fourth ventricle at the region of the *striæ acousticæ*." A sub-variety of this exists in which, after the movement of extension, an active movement of flexion follows instead of a simple sinking

back. A third variety is the radiating knee-jerk. In this case the blow is followed by contraction of distant muscles, of the trunk, the opposite leg or even the arms. This is often obtainable on one side only and only where the reflex is exaggerated. It is not pathognomic of irritation or irritability of the medulla. The tonic contraction is the fourth variety. The contraction is of considerable duration and the knee remains in extension for an appreciable time. In cases of severe lateral sclerosis with increased reflex irritability, sometimes denominated spastic ataxia, we may obtain a tonic extension jerk, or even one of flexion. A clonic jerk can frequently be obtained in the milder forms of this affection. The jerk may be delayed, an appreciable interval intervening between the blow and the contraction. Similarly the reflex may, in some cases, become soon exhausted, and this is especially so in cases which show irradiation of the reflex. (*Deutsch. Med. Wochensch.*, No. 19, 1893.)

G. J. KAUMHEIMER.

THE HEMIOPIC PUPILLARY REACTION.—From a consideration of some cases of his own and a considerable number of published cases, Heddæus concludes that “for the present, we are not justified in basing a differential diagnosis between cortical hemiopia and that due to lesions of the optic tract on the presence or absence of this symptom.” He claims that all we can do is to record and study all cases, but that until further advances in physiology and the finer anatomy of the optic nerve are made, this symptom has no localizing value. (*Deutsch. Med. Wochensch.*, No. 31, 1893.)

G. J. KAUMHEIMER.

UNEQUAL PUPILS.—Inequality of the pupils, or anisokoria, without demonstrable cause, has long been considered to be a symptom of disease of the nervous system. A. Reche reports from Magnus' eye clinic, at Breslau, that this symptom was found 256 times among 14,392 eye patients, treated between January 1, 1888, and April 1, 1892. Cases of glaucoma and inflammatory conditions were not counted. After excluding all cases of tabes, general paralysis, supraorbital neuralgia, hemicrania, optic atrophy, separation of the retina, external ophthalmoplegia, ptosis, paralysis of accommodation, synechiæ or precedent iritis, as well as those cases in which reaction to light or accommodation was faulty, 143 “pure” cases remained (1 per cent. of all cases seen)—85 were males, 58 females, although more females than males had applied for treatment. In 67, the right, in 76, the left pupil was larger.

The difference varied from 0.5 to 3 mm. All ages were represented. Pupillary inequality was found in 11 cases of myopia (equal on both sides); in 62 cases of equal hyperopia; in four cases of equal presbyopia with emmetropia. In myopia not equal the pupil of the worse eye was larger than its fellow 15 times, smaller nine times. In unocular hyperopia, the pupil of the defective eye was larger 12 times, smaller ten times. In two cases of unilateral hyperopic and one of unilateral mixed astigmatism, the pupil was larger in the affected eye; in myopic astigmatism (one-sided) wider three times, smaller once, in the defective eye. In seven cases of cataract, the pupil of the worse eye was larger, in no case was it smaller; the same condition was present in five cases of corneal and two cases of vitreous opacity.

In three cases of changes in the macula and 11 of amblyopia without demonstrable cause, the pupil was largest on the unsound side; in seven cases of the latter it was smaller on that side. In one case of congenital lagophthalmos, the pupil was larger. In a case in which the difference was 3 mm. the relatives stated that it was observed at birth. In 78 cases both eyes were equally affected. From this the author deduces that the condition is very often without demonstrable cause. He suggests that the difference may be purely accidental and physiological, inasmuch as we are in the habit of taking into account, in ophthalmic observation, minute differences which we would eliminate in general practice. At all events, he thinks that it may be generally stated that anisokoria has no practical importance. (*Deutsch. Med. Wochens.*, No. 13, 1893.)

G. J. KAUMHEIMER.

ZOSTER IS NOT OF NEUROTIC ORIGIN.—This opinion was first expressed by Pfeiffer. Von Wasilewsky, as the result of a collective investigation involving 274 cases, reaches the conclusion that the disease follows the distribution of the arteries and belongs to the acute exanthemata. (*Berlin Klin. Wochens.*, No. 21, 1893.)

G. J. KAUMHEIMER.

NERVOUS SEQUELÆ OF CARBONIC OXIDE POISONING.—Becker furnishes a further report on a case of carbonic oxide poisoning which he observed in 1889. The case was a severe one and four months later the patient presented marked intention tremor, slight tremor during rest, slow and monotonous speech, slight diminution of muscular power and diminished sexual power. At that time the author was unable to find a similar case in literature. In the spring of

1892 the patient presented himself at Ebstein's clinic with all the symptoms of multiple insular sclerosis strongly pronounced. Cramer has reported a second case, that of a woman of 71, who died a month later. He found diffuse atrophy of the fibres of the cortex, atrophy of the ganglion cells, hyaline degeneration of a part of the vessels of the basal ganglia, pons and medulla, and a diffuse proliferation of the neuroglia throughout the white substance of the hemispheres and at a small area over the aqueduct of Sylvius. These changes are quite sufficient to explain the symptoms observed by Becker. (*Deutsch. Med. Wochensch.*, No. 24, 1893.)

G. J. KAUMHEIMER.

GERDES' ECLAMPSIA BACILLUS.—A number of obstetricians and bacteriologists have attempted to prove the statements made by Gerdes, that he has discovered a pathognomic bacillus in women dead of puerperal eclampsia. Hofmeister, Haegler, Fehling and Doederlein agree in declaring that they have not been able to convince themselves that the bacillus found by Gerdes is the cause of eclampsia. Hergott made cultures from the organs in seven cases of eclampsia without results. From the urine he isolated a bacillus in five cases. This bacillus was not identical with that of Gerdes. It had some pathogenic action on pregnant rabbits, but Hergott believes that this is due to its action on the kidneys. (*Wien. Med. Wochensch.* No. 22, 1893.)

G. J. KAUMHEIMER.

DEATH FROM LARYNGEAL SPASM IN MALE HYSTERIA.—Prof. Leo reports the case of a man 20 years old, of intemperate habits and with a history of minor nervous troubles from childhood. About two years before death he received a blow on the head, which was followed by spasms beginning in the fingers, soon involved the left arm and then the left leg. These disappeared upon the administration of bromides. In January, 1893, he was admitted to the medical clinic at Bonn for treatment. A constant clonic spasm was observed in the left triangularis menti muscles. The left arm was constantly agitated by alternating clonic and tonic spasms. Clonic contractions of the left leg and thigh were also noted, as well as occasional tonic spasms of the trunk, causing opisthotonos. The left side was completely anæsthetic, the left side of the face somewhat less so. The reflexes were normal. Prof. Schultze, in a clinical lecture, pointed out the absence of all symptoms pointing to any organic lesion and pronounced it a case of male hysteria. Later the patient came under Leo's

charge. Under hyoscine in increasing doses (up to 4 mg. per day) the spasms diminished in intensity. The anæsthesia did not change, however. Suddenly the convulsions set in with far greater severity than ever before, and after 24 hours were accompanied by severe inspiratory dyspnœa, with retraction of the jugulum, intercostal spaces and abdomen, and hiccough. Stridor was not observed. Death soon occurred from increasing dyspnœa. Autopsy showed a moderate amount of leptomeningitis of the convexity anteriorly, which was the only change found in the brain. The vocal cords were adducted and in complete apposition, so that water poured into the larynx above did not pass into the trachea. No other pathological change was found in the body. (*Deutsch. Med. Wochensch.*, No. 34, 1893.)

G. J. KAUMHEIMER.

DEFINITION OF THE TERM "REACTION OF DEGENERATION."—Remak, after pointing out the changes of meaning which this phrase has undergone and the errors occasioned thereby, summarizes as follows: (1). The only convincing symptom of muscular degeneration is the repeated demonstration of galvano-muscular R. D. (with direct irritation). (2). Its criterion is not the inversion of the contraction formula, but the slowness of response. (3). The older view, that the varying response of degenerated muscles to galvanic and faradic stimulation is due to the greater duration of the former is now untenable. It seems that the histological (and chemical) degeneration of the muscle change its mechanism of contraction in such a manner that the response becomes less to all forms of electric irritation, and its exhaustibility greater, in direct proportion to the degree of degeneration. (4). Slowness of contraction upon direct faradic and franklinic irritation can only be pronounced as R. D. if the response to direct galvanic stimulation is similar. (*Deutsch. Med. Wochensch.*, No. 46, 1892.)

G. J. KAUMHEIMER.

THERAPEUTICS.

THE LIQUOR QUESTION FROM A MEDICAL STAND-POINT.—Prof. Adolph Struempell addressed the Society of German Naturalists and Physicians at Nuremberg on this very important but (in Germany) much neglected subject. The following is a brief summary of his remarks: As an important and far-reaching etiological factor, chronic alcoholic intoxication is not sur-

passed; only syphilis and tuberculosis can be compared with it. Delirium tremens and heart failure are due to summation of minute toxic effects just as drop wrist or an epileptic seizure are due to the summation of effects of exceedingly small quantities of lead absorbed daily. The toxic effects of alcohol, a readily oxidizable substance, cannot be due to an accumulation of toxic material, but to a change of structure resulting from its chemical action on nerve tissue. From an insignificant alteration a chronic pathological condition gradually results. Comparatively small amounts of alcohol taken regularly and habitually are as effective as an oft-repeated severe acute intoxication. As in other acute and chronic intoxications, there is a pronounced difference of individual disposition to the action of alcohol and undoubtedly a different individual disposition of the internal organs also exists. Alcohol, like most other poisons, attacks the nervous system first. In acute intoxication there are striking psychical changes with concomitant defective motor innervation. Chronic alcoholism causes delirium and polyneuritis, giving rise to tremor, ataxia and paresis; also dementia and epilepsy in which the etiological relation is not so clear, and rarer forms of nervous diseases, as hæmorrhagic pachymeningitis and encephalitis. Innumerable cases of acute and chronic affections of the pharyngeal and gastro-intestinal mucous membrane must be mentioned on account of their effect on the general nutrition. The essential and most important effects of alcohol are on the cellular structure of organs, causing especially diseases of the liver, heart, arteries and kidneys. The popular belief that the evil effects of alcohol will be eliminated by the general use of beer instead of strong liquors is entirely erroneous. An enormous quantity of liquid is taken into the system, throwing extra work on the heart, kidneys, skin and lungs and causing left ventricular hypertrophy. The enormous increase of carbo-hydrates raises the specific gravity of the blood and increases the arterial pressure by overstimulation of the vessels, thereby overtaxing the heart. In addition, alcohol causes cardiac muscle and nerve degeneration. In the kidneys chronic alcoholism produces an acute nephritis, often ushered in by œdema and rapidly ending fatally or in a chronic nephritis. Alcohol interferes with the oxidation of albuminoids, carbo-hydrates and fats, causing respectively gout, diabetes mellitus and obesity. Prof. Struempell calls attention to the indifference of the medical profession (in Germany) to the liquor question and hopes for improvement on this point when the innumerable bad effects of chronic alcoholism are better known; when many erroneous ideas of the harmlessness and the therapeutic

value of beer are corrected. He strongly condemns the prevailing German custom of permitting children to use alcohol; only recently a case of alcoholic polyneuritis in a 5 year old boy was observed by him. (*Wien. Med. Blætt.*, No. 39-41, 1893.)

R. W. ROHRDANZ.

SUSPENSION FOR PROGRESSIVE LOCOMOTOR ATAXIA, IMPOTENCE AND SPERMATORRHŒA.—Dr. J. M. Aravena, of Santiago de Chile states the following as his conclusions as to the employment of suspension in these cases:

1. Suspension is indicated during the period of sclerosis, and contra-indicated during the period of increasing congestion of the spinal medulla. When the genito-urinary symptoms develop during the preataxic period, and are not relieved by medication, the suspension treatment should be tried, as also when the fulgurant pains of tabes are not relieved by the use of narcotics and analgesics, even though this should be during the congestive period of the disease.

2. Suspension without doubt exercises a favorable effect in the treatment of neurasthenic impotence, and on the impotence which is the result of either a voluntary or involuntary spermatorrhœa.

3. A favorable effect is produced in the treatment of cases of neurasthenic spermatorrhœa, the result of onanism or excessive indulgence in sexual congress.

4. The observations which he has made on the effect of suspension in the treatment of involuntary spermatorrhœa, permit the statement that this method is very favorable and very rapid in its results, but he does not consider that the cases treated by him have been a sufficient time under observation to permit him to affirm that in suspension we have a method of treatment which is absolutely curative in its results. However, he claims that up to the time of the production of his theses, none of the cases which had been treated and relieved of their spermatorrhœa, had returned for further treatment, although in many of the cases a period of over three months had elapsed since treatment was discontinued.

- 5th. The suspension method, whether employed in the treatment of tabes or any other spinal condition, is not without danger, and should not be used by others than those who are familiar with its effects. The simplicity of the method invites the incompetent and inexperienced to its employment, and often to the great injury of patient. (*Boletín de Medicina*, Santiago de Chile.)

H. M. BROWN.

ON THE JUSTIFICATION AND ACTION OF MERCURIAL TREATMENT IN TABES.—One of the earliest and weightiest objections to the Erb-Fournier theory of the dignity of syphilis as an etiological factor of locomotor ataxia is the frequent failure of specific treatment. The exact conditions of the relationship between these two affections we do not know, but as Erb and others have shown that the greater number of tabetics have had syphilis and as we often find combinations of gummous and tabetic processes, we may safely assume that they are in some way related. Rumpf was the first to suggest that tabetics who had had syphilis be treated by mercurials. Since then Hammond, Schulz, Eisenlohr and Strümpell have reported favorably on this method. Reumond reports thirty-six cases with fifteen improved, twenty-one not improved; G. Mayer seventy-one cases, with thirty-five improved, twenty-two not improved, while fourteen cases withdrew from treatment. Dr. M. Dinkler, assistant at Erb's clinic, reports on seventy-one cases occurring in the private and clinical practice of his chief in the last five years. In all cases the mercury was administered by inunction. Iodides were also liberally administered. Tonics and all other adjuvants were employed. In fifty-eight cases there was improvement in one or more of the symptoms; in eleven there was no improvement; in two the symptoms were aggravated. Of these latter one died two months later and the autopsy showed diffuse arterial and meningeal syphilis. The other died seven months later with symptoms of cerebral tumor. One of the improved cases used, on his own responsibility, 4000 gm. mercurial ointment in six years without deleterious consequences. Detailed histories of all the cases and an analysis of the symptoms are given. (*Berlin Klin. Wochensch.*, No. 15-20, 1893.)

G. J. KAUMHEIMER.

STRONTIUM BROMIDE IN THE TREATMENT OF CHRONIC EPILEPSY.—Dr. Berkley has an article in the May number of the Johns Hopkins Hospital Bulletin in which he says he has used strontium bromide in a number of cases of chronic epilepsy. In nearly every case in which it was used patients were benefited; mental condition was improved, seizures less frequent and it did not disagree with the stomach. He gave from 21 to 30 grains three times a day.

B. M. CAPLES.

NITRO-GLYCERINE IN EPILEPTIC PAROXYSMS.—Bates advocates the use of nitro-glycerine by hypodermic injection

during the convulsion. In his first case patient had had attacks for four years; had fallen in an attack, was rigid, unconscious, violent muscular convulsions, and had all the symptoms of an epileptic seizure. Hypodermic injection of 1-100 grain of nitro-glycerine was given and before the needle could be withdrawn total relaxation took place, consciousness returned, patient asked for a glass of water. Bates has tried this plan in a dozen cases without a failure; only once was a second injection necessary. The method shortens the attack, saves fatigue, lessens the after-effects and the author thinks has some influence on frequency of attacks. The after-treatment consists in administration of bromides in bitter infusion, hops being preferred, and the use of minute doses of nitro-glycerine. (*N. Y. Medical Journal*, July 29, 1893.)

B. M. CAPLES.

REST IN THE TREATMENT OF EPILEPSY.—Dr. C. Neisser reports excellent results in seven cases of epilepsy from prolonged rest in bed (*Therap. Monatsh.*, No. 3, 1893.). The patients were only allowed a short sojourn in the open air during fine weather. The cases were all severe and chronic, some with pronounced dementia and violent general convulsions. In all cases a gain in weight set in during the first week, which increased during the next three weeks. In six of the cases the convulsions became less in number after the second week. An influence on the severity of the convulsions was not proven. In cases in which there was a tendency to transitory psychical disturbance the rest in bed was found to cause a decided amelioration of the mental symptoms. (*Wien. Med. Presse*, No. 16, 1893.)

G. J. KAUMHEIMER.

PHYSIOLOGICAL ACTION OF THYROID SUBSTANCE ADMINISTERED INTERNALLY.—As the result of experiments on three patients with myxœdema and six other subjects (sick, but not with myxœdema) Vermehren states: That in youthful individuals, an increase in diuresis occurred in two out of three cases. In senile subjects, however, a reaction takes place which, in its principal phenomenon, an increased excretion of nitrogen, corresponds to that observed in myxœdematous patients. While the increase in temperature, pulse and respiration-rate and urinary secretion corresponds, in its main features with what is observed after the use of the thyroid gland in myxœdema (*Deutsch. Med. Wochens.*, No. 43, 1893.)

G. J. KAUMHEIMER.

MYXŒDEMA IN CHILDHOOD AND ITS TREATMENT BY THYROID EXTRACT.—Rehn exhibited three children affected with myxœdema at the last German Congress of Internal Medicine. The main symptom is the cessation of growth, which is especially evident in the osseous system. In none of these patients could the thyroid gland be detected by careful palpation. In one case a piece of normal thyroid gland (human?) was implanted in the neck, the other two were treated by the extract. They had each received the equivalent of $2\frac{2}{3}$ glands of sheep by the mouth between the beginning of February and the middle of April. Only once, after a dose of 15 drops, malaise was complained of. The improvement was considerable. Perspiration had returned and the weight had decreased. The height had increased 3 cm. Hoffman remarked that he had had a similar case in which such emaciation took place that the treatment had to be discontinued. (*Wien. Med. Presse*, No. 30, 1893.)

G. J. KAUMHEIMER.

TREATMENT OF MYXŒDEMA BY FEEDING WITH THYROID GLAND OF A SHEEP.—Dr. Chapland reports the case of a woman aged 52 who has been ill for about ten years. The head was scurfy and hair gradually falling out, skin cold and non-perspiring, nose so enlarged so she could not breathe through it, spoke with great difficulty and pain and drawled her words. Was deaf and could not hear clock strike, considerable pain over shoulders and clavicles and around neck. Could not raise head without difficulty and pain, wrists so enlarged that pulse could not be felt. Commenced treatment November 12th and immediately the beneficial action of the gland was visible by inducing refreshing sleep and gentle perspiration. Nov. 22, swelling of face diminished a great deal and she could hear the clock strike. On December 28 swelling of the legs had nearly disappeared. The author gave her half an underdone thyroid gland the first thing every morning taken with ordinary food, from November 12th to January 12th. No bad symptoms arose from the treatment except the last week, when there was some feeling of discomfort (tired) about the neck and shoulders. February 5th, is now free from pain and feels quite well. (*Brit. Med. Jour.*, April 8.)

B. M. CAPLES.

MYXŒDEMA CURED BY THYROID EXTRACT.—Dr. Henry reports the case of woman aged 44 years, suffering from the above, who came under his care in the spring of '92. She

dated her illness back to 14 years. Her face and limbs began to swell and her mind became torpid. Had not been able to leave the house for three or four years; speech slow and devoid of tone. Complained of unpleasant taste and smell. Temperature 96.6. Sometimes mercury of thermometer would not rise out of the bulb, when it must have been as low as 94. Bowels obstinately costive. Commenced treatment May 14 by hypodermic injections of 30 minims of thyroid extract from then until the beginning of August. From August 3 until October she had two injections every fortnight. Patient ceased menstruating in 1888. It again occurred two years ago and once in 1891. Two days after the first injection, menses re-appeared and have been regular almost every month since then. Temperature has ranged from 97 to the normal. On each occasion a rise of one degree was noticed after the injection. The swelling of the face and limbs gradually disappeared. Patient is now vastly improved. Speech is rapid and natural. Spirits bright and memory good. Can move quite actively. Skin is moist. There is a thick growth of hair on the scalp and hairs on the body have returned. Author has been feeding her with raw thyroids, but does not think they are as efficacious as injection, as effect on temperature seems less marked and more evanescent. She has to take one lobe of a sheep's thyroid every second day. (*British Med. Jour.*, April 8.)

B. M. CAPLES.

FURTHER REPORT ON THE TREATMENT OF MYXÆDEMA BY THE USE OF THE THYROID GLAND.—Vermehren (*Ueber. d. Behandlung des Myxædems, Deutsch. Med. Wochenschrift*, No. 11, 1893,) reports on a case treated by Howitz by the administration of the cooked gland, and claims for Howitz the priority in this method of using the gland. The case was one of seven years duration, in a woman 42 years old. The disease was well marked. The glands were cleaned, parboiled, then chopped and served in the broth variously seasoned. During the first month the patient ate each day four lobes of calves thyroid and during the succeeding ten days two lobes every other day. Improvement was noticeable on the third day of treatment, beginning with a great increase in the quantity and specific gravity of the urine. The epidermis exfoliated in large flakes. At the same time a severe urticaria developed and remained during the duration of the treatment, diminishing during the intervals. Stenocardic attacks, with small and frequent pulse, occurred a number of times, occasionally assuming an alarming character, necessitating a cessation of treatment. Within five weeks the visible symptoms of the

disease had vanished so that a diagnosis was not possible from the remaining symptoms. Several slight relapses were cured by the ingestion of a few glands, which was each time followed by the urticarial eruption. The action of the thyroid gland in gastric administration seems to coincide with that observed after injection of its extracts. The method, however, presents the advantage that the possible accidents attending the subcutaneous use of animal extracts, such as sepsis, are avoided, and that the administration is easier and does not require the personal presence of the physician. S. Laache, of Christiania, (*Ueber Myxædem u. d. Behandlung m. innerlich dargereicher Glandula thyroidea, l. c.*), also reports a case of myxædema treated by the administration of the thyroid gland by the mouth. Five gms. of thyroid gland were comminuted and macerated for twenty-four hours in 100 gms. of glycerine. After expression the resulting liquid was to be taken in the course of a day. His case is of especial interest in that the patient was a male. In this case, also, an eruption, consisting of minute pale red papules, appeared at the end of a month, but lasted only a few days. In six weeks a new growth of hair could be observed, as was also the case with Vermehren's patient. Between the 12th day of October, 1892, and the succeeding 4th of January, the patient had consumed 130 gms. of thyroid gland, partly from sheep, but later from calves. After a time the glycerine extract was discontinued and the gland administered in substance. Three photographs are given, showing the regression of the disease. Wichmann (*Weitere Mittheilungen ü. Myxædem, l. c.*) reports the progress of the case related previously (see last number of this REVIEW, p. 337). He continued the injections at intervals of one to two weeks for some time. Then, to eliminate the possibility of suggestion, he substituted distilled water, giving the injections every two weeks. At the end of seven weeks the patient complained that the disease was returning. He also reports a second case, in which rapid improvement followed the injections which were given, at first, every third day, gradually lengthening to two weeks. After twelve injections during eleven weeks a remarkable improvement had taken place. In this case also a relapse followed the use of the distilled water injections.

G. J. KAUMHEIMER.

A CASE OF SPORADIC CRETINISM, TREATED WITH A BODY EXTRACTED FROM THE THYROID GLAND OF THE CALF.—Vermehren, in connection with his report on the use of the thyroid gland in myxædema, relates a case of sporadic cretinism, in

a woman of twenty-nine, beginning in the fifth year, which he treated by the use of a thyroid extract. The glands were cleaned, rubbed to a paste and covered with twice their weight of glycerine, which was filtered off after 24 hours. Absolute alcohol being added, a dense grayish-yellow precipitate was obtained, which was further washed with alcohol and dried at the temperature of the room. Vermehren proposes the name thyreoidin for this substance. Between Dec. 18th and Jan. 8th she received 4.25 gms. of this substance in doses of 10 to 30 cgms. each. A great improvement had taken place during this time, both mentally and physically. The patient is still under observation and a further report is promised regarding this and another similar case.

G. J. KAUMHEIMER.

CARDINE.—Dr. Wm. A. Hammond, N. Y. Medical Journal for April, speaks of his preparation of Cardine as follows: One thousand grammes of finely minced fresh ox heart (which, by the way, he considers best) previously well washed in saturated solution of boric acid, are submitted to action of menstruum consisting of 1200 grammes glycerine, 1000 grammes sat. sol. (at 60° F.) of boric acid and 800 grammes alcohol. Mixture is made in porcelain, glass or glazed jar, having closely fitting cover and every day for eight months or one year mixture to be stirred and heart substance to be subjected to strong pressure. The supernatant liquid is poured into porous stone filter, allowed to percolate through into lower vessel. The finely comminuted heart substance remaining is subjected to strong pressure in metallic press and resultant juice poured into filter. Thus prepared the sol. of cardine is a clear, transparent liquid, sp. gr. 1070. The most rigid antiseptic precautions must be taken in preparation, as it is used hypodermically and substances employed to prevent septicism must be such as are not deleterious to the system. Physiological action:—In ten minutes pulse stronger, fuller and sometimes more frequent, arterial tension augmented, action of kidneys increased, number of red blood corpuscles increased. Therapeutics:—cardiac weakness, fatty degeneration of the heart, nervous prostration attended with anæmia and sometimes chlorosis. Dose min. v. hypodermically.

T. W. BISHOP.

ORGANIC LIQUID INJECTIONS.—Dr. Baudin, of Besancon, having made (*Mercuredi Med.* Aug. 30, 1893,) about 1,500 injections on 200 patients with quantities ranging up to 2 gms. of both the Constantin Paul and Brown-Sequard liquids,

found a totally negative effect in about half the cases. In the greater part of the remainder benefit was but slight and temporary, and easily accounted for by auto-suggestion. In a few cases durable effects seemed to result. The effects most beneficial in type resulted in senile cachexia, exhaustion and pronounced over-work, melancholia, hypochondria, spermatorrhœa and phthisis. They were almost nul and very inconstant in neurasthenia, and altogether nul in hemiplegia, paraplegia, articular rheumatism, epilepsy, etc. The durable exceptional effects could not be attributed to auto-suggestion or to pure counter-irritation. The substitution of glycerine water for the organic liquids put an end to the effects obtained. Furthermore, the effects experienced by the patient varied with the method and preparation used. Dr. Mossé, of Montpellier, had not had striking results. The favorable effects obtained were temporary and did not persist. In an ataxic case glycerinated distilled water was substituted for the beneficial organic liquids with a continuance of benefit. Suppression of the glycerinated water caused disappearance of the benefit. In another ataxic case Sequardian injections had had no apparent result. The bed-ridden patient on their suppression demanded their continuance as "he felt weak." Dr. Mossé used the glycerinated water and the patient "felt much stronger than of old." Auto-suggestion in these cases certainly played a decided part. There are cases in which the effects of the medication cannot be obtained with the substitutes nor even with a diminished dose of the organic liquid. When diseases depended on an inveterate organic lesion the disorders due to it could hardly be expected to disappear. Probably the injections diminished the general nervous exhaustion and thus produced favorable effects. Dr. Cazin, of Paris, cited the fact that Halipré and Tariel had shown that hemiplegics and tabetics favorably affected by the organic liquids were equally affected by glycerinated distilled water substituted therefor.

J. G. KIERNAN.

A FURTHER REPORT OF THE TREATMENT OF NEUROSES BY THE INJECTION OF NORMAL BRAIN MATTER.—V. Babes reports further cases treated by the method originated by him (*see this REVIEW, Vol. III., No. 2, p. 181.*) He states that the results obtained at first were in many cases transient. He gives cursory histories of five cases of neurasthenia, nine of psychoses and eleven of epilepsy. The cases of neurasthenia, which include one of those previously treated, were all benefitted, and three of them were reported well two months after cessation of treatment. The psychoses include six

cases of melancholia with various degrees of stupor, two of paralytic mania and one of general pseudo-paralysis. Although no cure resulted among the melancholics or maniacs after 35 to 60 injections, in all of them the physical and in some the mental condition showed great improvement. The case of pseudo-paralysis was discharged as temporarily cured after 20 injections. The epileptics were all severe cases. The fits became, in all cases, much milder and the intervals much longer, although in no case did a complete cure result. The stupor and headache usually following a spasm were generally relieved. In the same article, Babes states that the types made him say, in a previous article, that he pressed the brain and cord through earthenware. It should have been through calico or similar material. (*See this REVIEW for Dec., 1892.*) (*Deutsch. Med. Wochenschr., No. 12, 1893.*)

G. J. KAUMHEIMER.

PHYSIOLOGICAL EFFECTS OF CHLORALAMID.—From a very interesting report of extended trials with chloralamid by Piccinimo (reported in *Annal. di Neurolog.*), which included its use in a great variety of diseases, in both human patients and animals, we extract the following conclusions: 1. Chloralamid in doses of 0.01 to 0.03 grm. reduces the neuro-muscular irritability in frogs. 2. In guinea pigs and rabbits, proportionately to the size of dosage, it less often reduces the frequency of the respiratory movements, which, however, always continue deep and rythmical. The temperature is reduced up to 2°C., the reflex manifestations remain unchanged, and no irritating effect is ever produced on the digestive apparatus. 3. In dogs small doses produce only a frequent tendency to urinate, and large doses effect a reduction of the electro-muscular excitation, as also of the cortex of the brain, the subcortical layers and inner frame. This reduces excitation returns, and through small doses of strychnia sulphate is greatly intensified. 4. In animals sleep is produced within fifteen to twenty minutes after injection of the remedy hypodermatically or into the stomach. 5. In human patients 2 grm. doses taken in daytime by individuals who had a good rest during the previous night no sleep is caused, but neither are side effects produced. In 2.5 grm. doses sleep of short duration may be caused, during which the pulse-rate and respiratory movements are slightly reduced. In 3 grm. doses sleep always ensues, with slower respiration and slower marked pulsation, which are at once restored to normal on re-awakening. No disturbance of digestion or the peripheral irritability of the reflexes were observed.

CHLORALAMID FAVORABLE TO DIGESTION.—In an address by Prof. Penzoldt, of Erlangen, delivered before the German Scientists' Congress at Nuremberg recently, on "The Influence of Drugs on Digestion," this distinguished authority stated that "Chloralamid was one of the few narcotic drugs which accelerated digestion, and in a pronounced degree."

Dr. Hurley, of Washington, writes: I tried chloralamid personally, and am very much pleased with the result. I am greatly troubled with insomnia resulting from nervousness, and following directions I mixed a 15 grain dose of it with a small quantity of brandy, and in about a half hour I dropped off into a natural sleep; I awoke the next morning just as though I had taken no hypnotic, instead of having that malaise feeling that other hypnotics give me. I think in chloralamid the medical profession has a valuable possession.

MELLITURIA FOLLOWING THE USE OF CHLORALAMID.—Manchot has had very good results from the use of this drug in delirium tremens, having been only five deaths from uncomplicated delirium in 519 patients. He found in the single case which died in 1892 changes in the heart and kidneys resembling those found by E. Fränkel after the administration of chloroform and by Wolf and Cavaganni after the use of chloral. Systematic examination of the urine was then made. It was found that sugar quite frequently appeared in the urine after the use of medicinal doses. Its presence was demonstrated by the fermentation test and the quantity determined by polarization. The frequency with which sugar was found varied with the dose. After 3 gm. it was found only once; after 6 gms. three times in forty-five cases; after 9 gms. twenty-seven times in sixty-nine cases; after 12 gms. twice in two cases. The duration of the mellituria is usually short (1 to 3½ days) and its intensity slight (up to 2½ %), although in one case it lasted 30 days. The duration and intensity seem to depend on individual predisposition more than upon the dose. Experiments on animals showed the same results in regard to the presence of sugar in the urine. Leudesdorf, in the discussion on this paper, declared himself as opposed to the administration of hypnotics in delirium tremens, although sometimes compelled to use them. Eisenlohr has used chloralamid for the last three years and finds it preferable to chloral, methylal or other hypnotics in alcoholic delirium, but has frequently found it unreliable in mania or other forms of psychical excitement. He has often been compelled to administer stimulants with the drug. (*Deutsche Med. Wochensch.*, No. 46, 1893.)

ELECTRICITY IN NERVOUS OBESITY.—Dr. Imbert de Touche, of Lyons, concludes (*Mercredi Méd.*, Aug. 30, 1893,) that electricity has an incontestable effect on obesity of nervous origin; the fatty anæmia so frequent in neurasthenics. The electro-static bath is the preferable method in these cases. It restores firmness to the flesh, elegance of the figure, and causes the disappearance of the exaggerated embonpoint. The nervous incidents (insomnia, headache, etc.,) disappear, appetite and strength return to their normal state. This method is infinitely superior to all other procedures for treating obesity, since it directly affects the nutritional disorders causing it. It allows of the suppression of all the obesity medication which is generally so repugnant to the patient and so noxious to the digestion.

J. G. KIERNAN.

ELECTRICITY IN PRURITUS.—Dr. Leloir (*Jour. de Med. de Paris*, Oct. 15, 1893,) finds good results in pruritus of all types: anal, vaginal and general, from the use of the electric breeze from the static machine.

J. G. KIERNAN.

HYPODERMIC TREATMENT OF NEURASTHENIA.—Dr. A. Mathieu (*Gaz. des Hop.* Sept. 7, 1893,) claims good results from the use of the following mixture hypodermically: Sodium phosphate, 4 grms.; sodium chloride, 2 grms.; neutral glycerine, 20 grms., and water, 80 grms. He attaches no specific action to this liquid, although he has had almost miraculous results from its use.

J. G. KIERNAN.

TREATMENT OF PUERPERAL ECLAMPSIA.—Dr. F. G. Davis reports five cases, all treated by the conjoint hypodermatic injection of morphine, $\frac{1}{3}$ gr. and tincture of veratrum viride, 6 drops, in 30 minims of water, to which 6 drops of alcohol have been added. In less than one hour the pulse was reduced from 140 to 70 and in some cases about 60 per minute. The rigidity relaxed. The skin became moist. Convulsions ceased. In only one case it was necessary to repeat the injection. One case began during labor and one one day before labor; in a third convulsions began three hours after delivery, and in another two weeks before delivery. All the mothers recovered. None of these cases had previous attendance. The urine was scanty and laden with albumen. The pulse was strong, full and rapid. In this class of cases I believe morphine to be the best remedy, combined with tincture of veratrum, instead of venesection, when needed. (*Med. News*, May 13.)

B. M. CAPLES.

CODEINE AND APOCODEINE.—Dr. Guinard (*Bull. gen. de Thérap.*, Aug. 30, 1893,) says that codeine and apocodeine have the same effects on the glands, heart and respiration. Codeine, unlike apocodeine, does not produce hypersecretion. Slumber produced by codeine is not as calm as that due to apocodeine and is often preceded by a slight convulsive phase. This convulsive phase, by its nature and manifestation, recalls that of apocodeine, but is much more marked, much more violent, more insidious and dangerous. Vascular disturbances occur, not observable with apocodeine. The convulsant effect of this last are not observable with therapeutic doses. Dr. Guinard hence proposes its substitution for codeine, especially in children's diseases.

J. G. KIERNAN.

POTASSIUM IODIDE IN CEREBRO-SPINAL MENINGITIS.—Dr. F. Velten claims that potassium iodide is a specific for epidemic cerebro-spinal meningitis. He makes the same claim for it in pneumonia, and reasons from the similarity of the cocci found in both diseases. He says he has had 80 cases of epidemic meningitis within the past four years, in all of which he administered 3 to 6 gms. of iodide of potassium per day. Particulars as to age of patients, severity and course of the disease are not given, only two illustrative histories accompanying the paper.—(*Berlin Klin. Wochensch.*, No. 11, 1893.)

G. J. KAUMHEIMER.

MORPHINE AND THE STOMACH.—Dr. Fedor Plessner confirms Hitzig's theory of the cause of the gastric troubles observed during the withdrawal of morphine, namely, that the drug causes anacidity. In 15 cases Plessner administered hydrochloric acid, with the best results. The nausea, bad taste, eructations and discomfort in the epigastrium were relieved and the appetite increased, so that some patients claimed to eat three times as much as before. This treatment failed in only three cases.—(*Berlin. Klin. Wochensch.*, No. 9, 1893.)

G. J. KAUMHEIMER.

RECTAL ADMINISTRATION OF SODIUM SALICYLATE.—Erlanger reports that this salt, administered by the rectum, exerts its antithermic, anodyne and anti-rheumatic action as promptly and efficiently as when given by the stomach. This method is to be used when the salt occasions nausea when given by the mouth, or when co-existing disease of the stomach contraindicates its employment in that manner. After an ordinary

evacuant enema, Erlanger injects, through a long rectal tube, a solution of 6 to 8 gms. of sodium salicylate in 100 gms. of water, to which 1.5 gms. of laudanum have been added. This last is to obviate the expulsion of the solution, which causes considerable irritation.—(*Wien. Med. Presse*, No. 19, 1893.)

G. J. KAUMHEIMER.

SURGERY AND TRAUMATIC NEUROSES.

BRAIN SURGERY, WITH A REPORT OF NINE CASES.—Dr. F. C. Schæfer reports nine cases of head injury treated surgically, in the *Journal of the Am. Med. Assn.* The cases are full of interest and are deserving of careful study. Dr. Schæfer believes that more of these cases should be submitted to operation, as in all probability those who die after operation would die anyway.

B. M. CAPLES.

SUDURAL HÆMATOMA TREATED BY TREPHINING, LATER OSTEOPLASTIC CLOSURE OF DEFECT IN THE SKULL.—Dr. O. Riegner reports the case of a boy who fell from a second story window at the age of five years. The symptoms were those of a severe injury to the left side of the brain. A fissure running toward the sagittal suture was found about two fingers' breadth above the meatus. The skull was opened at this point and a considerable quantity of blood and broken-down brain tissue removed. The defect in the bone measured 3 by 5 cm. All the symptoms soon disappeared with the exception of complete motor aphasia. The patient was removed by his parents, but returned one and one-half years later, when the defect in the bone was found to have enlarged considerably. Speech at that time had become almost normal. A flap about twice the size of the defect, and including all tissues down to the bone, was cut from the skin of the forehead, the external table of the frontal bone being included in the exact size of the defect. A similar flap was raised around and including the scar, and then these two were exchanged. The boy was out of bed on the fourth day. On the fifteenth day union was found to be complete. This case is of especial interest in showing the ease with which function is resumed after destruction of Broca's convolution, either by the remnant on the left side or by its fellow on the right. (*Deutsch. Med. Wochenschr.*, No. 28, 1893.)

G. J. KAUMHEIMER.

OPERATIVE TREATMENT OF CHRONIC HYDROCEPHALUS.—Prof. Pott, of Halle, has lately published a plea for the operative treatment of chronic hydrocephalus (*Münch. Med. Wochensch.* No. 16, 1893). He points out that in some cases spontaneous or traumatic rupture is followed by permanent cure. Continuous drainage is, however, necessary, as the fluid re-accumulates within 48 hours after simple puncture. In the first case, he inserted a drainage tube as large as a goose quill and 10 cm. long. The child, 4 weeks old, and in very bad condition, died twelve days after, of suppurative meningitis. Autopsy showed a very rudimentary brain. The second case was that of a boy, 15 months old, with a cranial circumference of 467 mm., a biparietal diameter of 140 mm., and a fronto-occipital diameter of 151 mm. The skull was so thin that the brain, the sinuses and meningeal artery could be seen by transmitted light. The child was becoming comatose and bilateral choked disc was developing. Puncture through the occipital bone evacuated 0.75 liter of clear fluid. After this the skull felt like a collapsed bag of bones. An adhesive plaster dressing was placed over and around the skull. The child remained afebrile and gained in weight. In two weeks the skull was as large as ever. Pott believes that even the transient removal of pressure is beneficial to the brain. In this case he is compelled to either operate radically or let the child alone. Considering the termination of such cases if left alone, operation, even at the risk of an early fatal termination, seems preferable.—(*Wien. Med. Blatt.*, No. 21, 1893.)

G. J. KAUMHEIMER.

PUNCTURE OF THE DURAL SAC FOR THE RELIEF OF PRESSURE.—At the last meeting of the German Congress of Internal Medicine several of the members reported their experience with this procedure. Ziemmsen has never failed in the attempt. The cerebro-spinal fluid escapes under varying pressure; it may spurt or come drop by drop. In several cases of epidemic cerebro-spinal meningitis he had punctured to relieve the intense headache. The fluid was cloudy and contained flakes composed-leucocytes, fibrin and diplococci, although cultures remained sterile. The headache was relieved for three days. Later punctures evacuated a fluid which was much less cloudy than at first. Ziemmsen has punctured as many as five times in a single case, with relief to headache. The sensorium became clear, and one patient was able to leave his bed. He always chloroforms the patient and uses a curved needle. Quincke, who originated this maneuver, has used it four times in twenty-two cases, but cautions against optimism, temporary improvement is all that

may be expected. It affords an insight into the nature of the fluid and the course of the disease. The composition of the fluid is of importance; $\frac{1}{2}$ –1 % of albumen denotes chronic hydrocephalus; 1–2 % is characteristic of an acute recent inflammation. The presence of blood is also of significance. The pressure of fluid varies from 150 to 700 mms. He recommends drainage of the dural sac. Ewald has punctured four times, once evacuating 80 cc. of fluid. The result is satisfactory, though temporary. Sahli recommends drainage of the ventricles, which he has done three times; in one case the irritation of the canula caused convulsions. Naunyn has punctured eleven times in seven cases. In one case the sac contained thick pus, which refused to flow through the canula. The results were transient. (*Wien. Med. Wochensch.*, No. 19, 1893.)

G. J. KAUMHEIMER.

OPERATIVE TREATMENT OF FRACTURES OF THE SPINE.—This subject was under discussion at a recent meeting of the Berlin Surgical Association. Körte, who introduced the subject, reported a case of fracture of the arch of the twelfth dorsal vertebra, operated on 16 hours after injury, without result, either immediate or remote. The cord had been crushed. He pointed out the difficulty of determining the cases in which to operate, as in some the cord was crushed beyond recovery at the moment of injury; in others the symptoms might be due to hemorrhage or concussion, in which case operation would be harmful, and in still others, considerable deformity might exist without compression of the cord. The surgeons who took part in the discussion were agreed that there was no definite rule to go by in these cases, that each one had to be weighed by itself and that in cases where compression was probable, operation is justifiable, as no other procedure is of the slightest use, and operation does not, in any event, change the prognosis for the worse.—(*Berlin. Klin. Wochensch.*, No. 22, 1893.)

G. J. KAUMHEIMER.

TREATMENT OF TIC DOLOROUS.—Dr. Jarre (*Prog. Med.*, Sept. 9, 1893), concludes that this neurosis is a constant symptom of peripheral cicatricial nervous lesions, which are located in the terminal extremities of the nerves in the alveolar region. Chronic alveolar-dental arthritis and infectious accidents determined by the premature eruption of the inferior wisdom tooth, are the most common causes of these alveolar cicatricial lesions, which are the point of departure of spas-

modic neuralgiæ of the face. The indicated treatment is extemporaneous resection of the alveolo-cicatricial region. Ten cases intractable to all medication for years, have yielded to this resection.

J. G. KIERNAN.

SURGICAL THYROID ERETHISM IN MYXŒDEMA.—Dr. M. A. Poncet (*Mecred. Med.*, Sept. 27, 1893,) reports the case of a 14-year-old myxœdematous girl who seemed to be but 8 years, whose mental and moral qualities had made her a pariah. She was kleptomaniacal, errabund, masturbatory and nymphomaniacal. She was seemingly intractable to reformatory control. In May, 1893, Dr. Poncet incised the neck over the median line. He found the thyroid diminished in volume. He scraped it with the finger, raised it and dressed it with iodoform. He calls this procedure thyroid-erethism. Under it there soon resulted marked improvement. In a month the patient seemed transformed. The myxœdema of the face, hands, arms and forearms and legs had decidedly decreased. The mentality of the patient underwent a surprising change. She became docile, trustworthy, modest and diligent. Dr. Poncet believes then that such an innocent, bloodless operation may be found of value in mental disorders which have their point of departure either in arrest of development, functional disorder or incipient hypertrophy of the thyroid gland.

J. G. KIERNAN.

EXOPHTHALMIC GOITRE TREATED BY OPERATION.—Dr. H. Determeyer reports this case. The patient was 37 years old, and the symptoms, which were pronounced, had appeared two years before, after an attack of influenza. On April 20, 1892, Rotter extirpated the right half of the goitre, which was slightly larger than its fellow, by Kocher's method. Within a week the tremor and twitching of the hands, the headache, insomnia, diarrhœa, anorexia and palpitation had ceased. The pulse was 100, but regular. By September the patient had gained 35 pounds in weight, the left half of the thyroid gland was but slightly swollen, and the exophthalmia was only moderate. This case is the 38th submitted to operative treatment. In four cases, improvement followed operations on the nose, in the remainder the thyroid gland was the point of attack. The thyroid artery was tied with good results in three cases; the goitre was extirpated or resected in 30 cases. One case proved fatal, three were not followed by improvement, and in 27 the result varied from marked improvement to complete cure. In the discussion on this paper, Julius Wolff related the subsequent history of the five

cases in which he had performed strumectomy for Basedow's disease. One case died on the table; in the second the great improvement had continued two years; in the third, the improvement, which was immediate, had continued three years; in the fourth, for a number of months; the fifth case, which at first was greatly improved showed, after two years, a severe relapse. Although Wolff declares that he is not at all enthusiastic over the operation, he deprecates the attitude of certain neuropathologists, who declaim against operation, although internal medication is so barren of results.—(*Deutsch. Med. Wochenschr.*, No. 11, 1892.)

G. J. KAUMHEIMER.

NERVE SUTURE.—Dr. Schiff points out (*Mecredi Med.*, Aug. 30, 1893) that section of a nerve determines its degeneracy by the third day and the formation of new nerve tubes is necessary to the re-establishment of sensibility. Hence, it would appear that nerve suture is almost useless. Often, however, it restores, seemingly, sensibility. This is because the axis-cylinder persists. I have cut a sciatic nerve and torn out the corresponding posterior roots, and further I have resected the crural to control a possible influence of recurrent fibres to the sciatic. Eleven months later I have made numerous sections and dissociations of the nerves. Myelin was destroyed, but the axis-cylinder persisted. This suffices to show that by the persistence of the axis-cylinder the severed nerves can still serve as conductors of sensibility.

J. G. KIERNAN.

A CASE OF TRAUMATIC NEUROSIS (Charcot's Hystero-Traumatic Paresis).—D. L. Reich cited the following cases before a recent meeting of the Royal Society of Physicians of Budapest:

Case I. A 14 year old boy presented himself at the Pasteur Institute, July 28, 1893, stating that he was bitten by a healthy dog, six days previous, became unconscious and fell. Upon return of consciousness, could not raise the right arm or flex it at the elbow. Whole arm was œdematous. On admission, a wound $2\frac{1}{2}$ cm. by 1 cm., extending to the muscles, was found on the upper arm; two pea-sized contused wounds on the forearm and small abrasions on the chest and little finger. Patient could not raise arm; if raised passively and dropped, severe pain was caused. Elbow joint was swollen. The paresis was due to psychical shock, caused by pain and disappeared without treatment in eight weeks. Analgesia, as observed by Charcot in a similar case, was not present.

Case II. A minister, aged 60, was bitten by a dog, and three months later complained of deafness and short, lancinating pains in the hand, occurring particularly with every recollection of the injury.—(*Wien. Med. Presse*, No. 45, 1893.)

R. W. ROHRDANZ.

A CASE OF TRAUMATIC NEUROSIS WITH PECULIAR MOTOR DISTURBANCES.—Dr. H. Schlesinger showed a man, aged 48, before the Vienna Medical Club, who, after a railroad accident, developed symptoms of traumatic neurasthenia, vertigo, debility, sleeplessness, Romberg's symptom, exaggerated patellar reflexes, ect. Condition unchanged during six weeks stay in a hospital. Patient was apparently unable to walk any distance because his legs crossed each other in the attempt; on taking a few steps the right leg was thrown outward; after 20 or 30 paces, especially while turning, the legs moved backwark instead of forward and were crossed so that the patient, partly hopping and partly dancing, moved backward a few paces and then again advanced. Apparently great efforts were made to overcome these motor disturbances, which were evidently simulated. (*Wien. Med. Presse*, No. 45, 1893.)

R. W. ROHRDANZ.

PSYCHOLOGICAL.

PATHOLOGY AND SYMPTOMATOLOGY.

INSANITY AFTER OÖPHORO-SALPINGECTOMY.—Dr. E. Régis (*Jour. de Med. de Bordeaux*, Sept. 10, 1893) reports the appearance of insanity after an oöphoro-salpingectomy performed for menorrhagia in a predisposed Hebrew. The type was that of primary confusional insanity tending to stupor. The treatment (which was followed by recovery) consisted in daily injections of ovarian juice.

J. G. KIERNAN.

MENTAL SYMPTOMS OF BASEDOW'S DISEASE.—Dr. Pilet-Fouet states (*Rev. Intern'l de Biblio Med.*, Sept. 10, 1893), that mental symptoms are quite frequent in exophthalmic goitre. Oftenest these are an expression of systemic exhaustion, such as apathy, abulia, sadness, irritability, memory failure and mental fatigue. True psychoses may occur, mania, melancholia, etc., and the onset of paranoia may be precipitated by the disorder.

J. G. KIERNAN.

PERJURY BY THE INSANE.—Dr. Cullerre (*Ann. Medico-Psych.*, July-August, 1893,) states that perjury by the insane in the courts has many diverse aspects. Many insane preserve a fairly correct view of their surroundings. Hardly an alienist would deny a certain amount of credibility to the insane. However, the extent of undue influence, as in children, and the influence of delusions is taken into account. Certain insane patients falsely accuse themselves of crimes; the falsity of the accusation is readily determined where the psychosis is pronounced. Melancholiacs frequently accuse themselves of imaginary crimes. The alcoholic melancholiacs are peculiarly liable to these self-accusations, which disappear as mentality is regained under abstinence. Hyterical false accusations, like alcoholic, originate in dreams and hallucinations, but, as they are persistent when mentality returns, they are much more important medico-legally. An amount of imaginary culpability is found in states of mental degeneracy, hereditary or acquired. In congestive types of insanity, reasoning insanity, or moral insanity patients falsely accuse themselves of imaginary or real crimes, from pride, from exaltation of their personality, yielding to a desire to

pose as heroes of scoundrelism, or from simple perversity. Their false witness may embarrass justice, but yields to a well directed scientific examination. These facts demonstrate that confession alone is not conclusive evidence of guilt. The insane falsely accuse others much more frequently than they do themselves. Certain pseudo-lucid psychopaths, like the circular, persecutorial delusional lunatics, and hysterics, who have an enfeebled or perverted moral sense, denounce persons falsely because of hate, vengeance or desire of evil doing, and in certain cases these denunciations enter into the entire intellectual life. It should be remembered that it is not only in the perversity of hysterics that certain denunciations originate but these result from dreams or hallucinations remembered as actual facts. From these have resulted the convictions of innocent persons through hysterical accusations. In the discussion of Dr. Culler's paper Dr. Charpentier, of Paris, said that all depositions of lunatics should be taken only after a medical certificate as to their value. Dr. Doutrebeute said that the statements of the insane at large were received with but too much credibility. Dr. Voisin cited in illustration the case of an apparently lucid recovered hysterical lunatic who detailed a rape suffered by her which investigation proved to be imaginary. Dr. Mabillet cited the case of a lunatic who, nineteen years after treatment for temporary insanity, caused the imprisonment of her husband during fifteen days investigation of an imaginary crime charged by her. Dr. J. Voisin said epileptic charges should be carefully sifted. Dr. Briant called attention to the dangers of concordant denunciation by victims of folie a deux: Dr. Doutrebeute had observed the case of a female persecutory delusional lunatic who charged that her master had been poisoned by a relative (also a persecutory delusional lunatic). Legal investigation was need to demonstrate the delusional nature of the charge. Dr. Mabillet pointed out that alcoholists often bear false witness under hallucinatory influence. Dr. Christian protested against the credulity with which insane denunciations were received.

J. G. KIERNAN.

IMPULSIVE CRIMINAL LUNATICS.—Dr. Rouby of Dijon states (*Mercredi Med.*, Aug. 30, 1893), that there exists a class of patients who may be taken temporarily for ordinary criminals and the determination of whose responsibility is difficult. For example, a seemingly sane woman has but the sole abnormal impulse to kill her children, whom she nurses carefully and whom she loves ardently. She is in despair at this horrible impulse. She flees from her children to avoid their death.

The impulse, furthermore, is always associated with the use of one instrument and never any other. She feels that she should experience an intense joy by plunging a knife into the child's chest and seeing the blood gush forth. Otherwise she is reasonable. In another case a man experienced intense hatred on seeing the body of his sister murdered by a drunken husband. He vowed to assassinate the assassin in his turn. He saw the knife raised on his brother-in-law, ready to stab him. Then the hallucination was transferred to the man's own daughter, whom he loved tenderly. To avoid her murder he fled the country. Dr. Rouby thinks the patient's irresponsibility began with the impulse anent his brother-in-law. In a third case a man had an imperative impulse to kill his wife. Later an hallucination commanded him so to do. Later still, he suddenly turned jealous without cause, and this jealousy became part of the hallucination. He suffered from urethral stricture, treatment of which resulted in decided mental improvement. Here probably was the source fixing the imperative conception on his wife, since the conception at first related to other persons and was only latterly transferred to the wife, probably during sexual intercourse.

J. G. KIERNAN.

SYMPTOMS FOLLOWING RESUSCITATION FROM SUSPENSION AND STRANGULATION AND THEIR FORENSIC IMPORTANCE.—Seydel observed a case of resuscitation, after an attempt at suicide by hanging, in a female, aged 27. After artificial restoration of respiration, there was unconsciousness for fifteen minutes, followed by convulsions, first without and later with hoarse cries. Consciousness returned in 20 hours, with retro-active amnesia regarding events preceding the suicidal attempt. Seydel refers to the discussion between Wagner and Moebius, as to the nature of the convulsions and disputes that they are hysterical. The intra-cranial symptoms resemble those of concussion of the brain, so well described by Friedmann and Schmaus. Moebius' hysterical case is considered one of concussion. The forensic importance of such cases lies: 1. In the retro-active amnesia of persons resuscitated from suspension and strangulation, who committed an offence or a crime just before they became unconscious. 2. In the retro-active amnesia of persons, who, rendered unconscious by strangulation, often cannot, as sole witness, name their aggressor or events that occurred just before the assault.—(*Wien. Med. Presse*, No. 40, 1893.)

R. W. ROHRDANZ.

NEURASTHENIC MELANCHOLIA.—Dr. M. Friedmann, from an exhaustive review of the relations of neurasthenia and melancholia, concludes that one of the main points of difference between neurasthenia and melancholia is the increased power of recuperation in the former. The patient may seem ever so depressed, recuperation takes place as soon as all depressing influences are removed. Neurasthenic melancholia is most frequent in advanced life, when the vital powers have lost their elasticity. He argues, with Beard, that the power of recuperation is a constant and typical characteristic of neurasthenia. The relationship between pure melancholia and the simple psychoses or genuine dysthymia is not intimate, but is superficial and due to the fact that both develop within the same functional territory; that they have practically the same etiology; and that both are really passive conditions, losses of function. The longer the duration of the neurasthenic history and the more distinct the symptoms of true neurasthenia, even if severe in grade, the less likely are we to find the development of a psychosis with other than a neurasthenic type, and the less the fear of a malignant transformation into a typical psychosis. (*Deutsch. Med. Wochensch.*, No. 30, 31, 1893.)

G. J. KAUMHEIMER.

HYSTERICAL STIGMATA.—Dr. Ludwig Bremer, of St. Louis, has an article in the *Medical Fortnightly* of October 1st entitled as above. The author says the claim for the recognition of hysterical stigmata as a distinct disease is as indisputable as is that of tabes or syphilis. The only way to arrive at an approximate comprehension of this trouble is clinical observation, and the patient ought to be treated for the disease of which certain forms of anesthesia are the same characteristic symptoms, or in neurological parlance, "stigmata." It seems almost incredible that this most common and most important of all symptoms of hysteria should be known to medical science only for the last fifty years, and that such a symptom, for instance, as the sensorio-sensorial hemi-anesthesia should not have been appreciated as to its diagnostic value until 1872. We, today, are familiar with quite a variety of anesthetic stigmata, both as to quality and as to the seats where these disturbances manifest themselves. Thus, hysterical anesthesia may be partial or total, complete or incomplete. The sensation of pain, temperature, touch or electricity may be lost singly, or several of these may be combined. What strikes the observer as very strange in such cases where the loss of sensation is very extensive,

even where it implicates an entire half of the body, is the fact that the patients generally are not at all aware of such loss until examined and informed by the physician. The manner of distribution is quite characteristic in hysterical anesthesia. Instead of following the course of the cutaneous nerves, as is the case in paralysis of sensation due to inflammatory or atrophic changes, in neuritis for instance, hysterical anesthesia has a topography independent of the anatomy of the nerves of sensation. Thus, one member or a part of a member may be anesthetic, and there is generally a sharp dividing line between the sentient and non-sentient surface. There is no intermediate or transition-zone, as we are wont to find in sensory disturbances of organic origin, and the line of limitation runs either along the functional boundaries of the members or the artificial circular lines which certain articles of wearing apparel have created in the mind of the patient. Thus, a foot, up to the ankle, or a leg up to a sharp circular line passing along the inguinal fold and thence along the crest of the ilium, may be devoid of sensation. The same is true of the upper extremities; in anesthesia of the arm it is almost invariably found that the line of demarcation passes through a point over the clavicle corresponding to the dividing line of the outer third and the inner two-thirds. Among the lines of demarcation corresponding to certain boundaries marked off by the dress, the seams of sleeves, the garter, or the upper margin of the stocking are the most familiar ones. Equally common are the anesthetic segments of the limbs, the upper and lower borders corresponding to the circular lines of amputation. Again, the anesthetic spots of variable sizes may be irregularly distributed over the whole body. Quite peculiar is the observation which I have been able to verify time and again, that the superficial reflexes are often not in the least affected by the profoundest anesthesia of the skin. Thus, the plantar reflexes may be obtained by stroking the sole of the foot, though the red hot iron or the deep punctures of the needle remain unperceived. This holds true also of the sclerotic conjunctiva which may be absolutely insensible while the conjunctival reflex is intact.

Whilst it is not only freely admitted, but emphasized by all observers, that shamming and moral perversion are among the mental attributes of confirmed hysteria, and of what is known as hysterical temperament, the reality of those symptoms is generally as incontestable as the paralysis of sensation in organic nerve disease. The most common and one of the most valuable of the anesthetic stigmata affecting mucous membranes is that of the fauces. Although the frequency of the occurrence of this stigma has at times been overrated its

great collateral diagnostic value cannot be denied. The pharyngeal reflex in such cases is usually absent, and it is the pharynx above all other parts of the body which is examined by the neurologist as to its sensibility and reflex irritability in doubtful cases suggesting hysteria. Of sensoral paralysis the most common, and for diagnostic purposes most important, are those affecting the eye. Thus, for instance, narrowing of the visual field (one of the commonest and diagnostically most important of the hysterical stigmata), achromatopsia, and dyschromatopsia, are the more pronounced, as the anesthesia of the patient is found to be more profound and complete. The same is true of amblyopia. It may be of interest to remark here that monocular diplopia has only been observed in the hysterical and that hemiopia is never an hysterical symptom. It is, perhaps, always organic in origin. Hysterical motor paralysis is, like the sensory variety, often characterized by its segmentary form. Thus, the articulation of the shoulder, the elbow, or the wrist may be singly paralyzed, the other two performing their normal functions. The all-important diagnostic symptom of hysterical hemiplegia is absence of facial paralysis. There are very rare exceptions to this rule. The stigmata, the principal ones of which I have briefly stated above, are not absolutely pathognomic when taken singly, will, when properly associated with other diagnostic factors, enable the physician to properly diagnose hysteria with the same degree of certainty as our present state of medical knowledge affords in most of the other diseases.

B. M. CAPLES.

ASYLUM AND HOSPITAL REPORTS.

ELEVENTH BIENINAL REPORT *of the Trustees, Superintendent, Steward and Treasurer of the Iowa Hospital for the Insane at Independence, for the period ending June 30, 1893.*—The report of this institution, under the management of Dr. Gershom H. Hill, contains much of interest. The principle of non-restraint is carried out to an extreme, though not in a bigoted manner. There is no enclosure whatever for either sex, nor is seclusion or mechanical restraint used except on rare occasions and but for an hour or two. Occupation of the patient is insisted on as much as possible. The total admissions were for 1892, 345, with 31 % of recoveries, and for 1893,

295, with 34 % of recoveries. The death rate was 4.5 % and 3.4 % respectively for these years, and the average population 848 and 843 respectively. The average cost of board has been \$13 per month. A training school, with compulsory attendance, is connected with this institution.

NOTES AND COMMENTS.

WE HAVE received an abstract of the proceedings of the Third Annual Meeting of the American Electro-Therapeutic Association, held in Chicago, September, 1893. A glance through its pages simply serves to emphasize the remarks contained in a recent editorial in the *N. Y. Med. Record*, that this branch, at first almost synonymous with neurology, has gradually become divorced from it, and has passed into the hands of other specialists. Among thirty-two papers presented only one had for its topic a subject connected with neurology, and this was read by title only. The gynaecologists nowadays seem to have almost complete possession of the electro-therapeutic field.

LEA BROS. & Co. announce the publication of "The Students' Dictionary of Medicine and the Allied Sciences." The author is Dr. Alex R. Duane, who has acted as reviser of medical terms for Webster's International Dictionary, and the valuable experience there obtained has stood him in good stead in preparing this work for his professional brethren. The work is published at a very moderate price.

WE HAVE received from P. Blackiston, Son & Co., of Philadelphia, their Physicians' Visiting List for 1894. Like good wine, this needs no bush, but unlike wine, the quality of one year is never poorer than that of the preceding year. It is well arranged and of convenient size and can be consistently recommended as *one of the best*.

DR. ERNST JENDRASSEK has been appointed Extraordinary Professor of Neurology at the University of Buda-Pesth.

PROF. WAGNER V. JAUREGG, Director of the Psychiatric Clinic at Graz, has been appointed Professor of Psychiatry at Vienna.

DR. BECHTEREW, formerly at Kasan, has been appointed Professor of Neurology and Psychiatry at St. Petersburg.

DR. HERM. OPPENHEIM, well known from his exhaustive writings on neurological subjects, has been appointed Professor at Berlin.

DR. H. CRAMER, Professor of Psychiatry and Director of the Psychiatric Clinic at the University of Marburg, died suddenly on August 16th, last.

BOOK REVIEWS.

ANNUAL OF THE UNIVERSAL MEDICAL SCIENCES. A YEARLY REPORT OF THE PROGRESS OF THE GENERAL SANITARY SCIENCES THROUGHOUT THE WORLD. Edited by Charles E. Sajous, M. D., and seventy associate editors, assisted by over two hundred corresponding editors, collaborators and correspondents. Illustrated with chromo-lithographs, engravings and maps. Issue of 1893, published by the F. A. Davis Co., Philadelphia, New York, Chicago and London. Australian Agency, Melbourne, Victoria.

This issue is a model of scientific research and investigation, giving the latest both at home and abroad. It is a work alike valuable to the specialist and the general practitioner and should be in every library. In these five volumes one has the condensed medical progress of the world and no progressive physician can afford to be without it. Its reputation is kept up to the standard. Dr Sajous is to be congratulated on his success in this publication.

As in last year's issue, the department of Diseases of the Brain is by Dr. Landon Carter Gray, of New York, and is exceedingly interesting. Some new evidence confirmatory of accepted theories is added in cerebral localization. All the articles are in a very condensed and comprehensive form.

Diseases of the Spinal Cord, by H. Obersteiner, M. D., of Vienna, shows that some new facts have been elicited during the last year that will prove of importance in this branch of study.

Peripheral Nervous Diseases, Muscular Dystrophies and General Neuroses, by Dr. A. Bourneville and Dr. Paul Sollier, of Paris, embrace all that is possible in such a work.

The department allotted to Mental Disease is written and compiled by Dr. Geo. H. Rohe, Superintendent of the Insane Hospital at Catonsville, Md., and is a thorough resumé of the latest current literature and research on this important subject.

The articles on Inebriety, Morphinism and Kindred Diseases are selected and written by Dr. Norman Kerr, of London, and treat the subjects as diseases, which seems to be the prevailing belief among medical men of the day, and the latest theories are clearly stated.

Surgery of the Brain, Spinal Cord and Nerves. Dr. Lewis S. Pilcher, of Brooklyn, and Dr. Samuel Lloyd, of New York, write this section and make extracts from various sources, showing that a marked advance has been made in this domain.

The articles on General Diseases are all concise and well written, giving one the essential and practical points. The entire work is a library within itself.

B. M. CAPLES.

ENTERORRHAPHY, ITS HISTORY, TECHNIQUE AND PRESENT STATUS.—President's address, delivered at a meeting of the Association of Military Surgeons of the National Guard of the United States, Chicago, August 8, 1893, by N. Senn, M. D., Ph. D., L. L. D. Reprinted from *The Journal of the American Medical Association*, Aug. 12, 1893.

This extremely interesting paper deals with the attempts which have been made to restore the continuity of the divided intestine from the first timid attempts of the fathers of surgery up to the finished technique of the present day, in the perfection of which the distinguished author has had such an important part. It is illustrated by fifty-three engravings, representing the various methods which have been suggested and employed. Although the subject does not fall directly in the line of this journal, the paper will be read with pleasure by all specialists who desire to keep up with the progress of their professional brethren who are working in other lines. It is seldom that so much of instruction and interest is found in so few pages.

G. J. KAUMHEIMER.

PAMPHLETS AND REPRINTS.

The Schott Method of Treating Chronic Diseases of the Heart by Baths and Gymnastics. — By Robert H. Babcock, M. D.

The Treatment of Blennorrhœa Neonatorum.—By Boerne Bettman, M. D.

The Relation Between the Eyes and Diseases of the Female Genital Organs.—By Boerne Bettman, M. D.

A Case of Acute Suppuration of the Middle Ear, accompanied by Cone-shaped Bulging of the Membrana Tympani. By Boerne Bettman, M. D.

Spastic Senile Entropion Cured by Canthotomy — By Boerne Bettman, M. D.

A Case of Distoma Hæmatobium.—By J. L. Hillmantel, M. D.

Enterorrhaphy; its History, Technique and Present Status. By N. Senn, M. D.

Treatment by Remedial Gymnastics of Chronic Congestion, Irritation and Inflammation of the Spine, and Treatment of Hip Disease by Remedial Gymnastics.—By Dr. Henric Sparre.

Some Remarks on the Administration of Anæsthetics.—By A. M. Adsit, M. D.

A Synopsis of Clinical Surgery, during the Service of Samuel H. Pinkerton, M. D., Surgeon to Holy Cross Hospital, Salt Lake City, Utah.—By Franklin A. Meacham, A. B., M. D.

Detroit Emergency Hospital Reports.

Inebriety.—By R. M. Phelps, M. D.

Eleventh Biennial Report of the Iowa Hospital for the Insane, at Independence.

Mechanical Aids in the Treatment of Chronic Forms of Disease.—By Geo. H. Taylor, M. D.

NEW GERMAN BOOKS.

KRAFFT-EBING. *Hypnotische Experimente*. Stuttgart. Ferd. Enke.

BUMM, A. *Experimentelle Untersuchungen ü. d. Corpus Trapezoides u. d. Hörnerven d. Katze*. Wiesbaden. J. F. Bergmann.

BAER, A. *Der Verbrecher in anthropologischer Beziehung*. Leipzig. G. Thieme.

PAETZ, A. *Die Colonisirung d. Geisteskranken, etc.* Berlin. Jul. Springer.

BOTHE, A. *Die familiäre Verpflegung Geisteskranker, etc.* Berlin. Jul. Springer.

PIPER, H. *Zur Aetiologie der Idiotie.* Berlin. Fischer's Medic. Buchhandlung. H. Kornfield.

MISCELLANEOUS MEDICAL NOTES.

PIL. DIPSOMANIA (Dr. Mann).—At a meeting of the American Association for the Study and Cure of Inebriety, held at the New York Academy of Medicine, March 23, 1893, Dr. Edward C. Mann, Brooklyn, N. Y., Medical Superintendent of Sunnyside Private Hospital for Diseases of the Nervous System, Alcoholism, and the Opium Habit, read a paper on "Science vs. Folly in the Treatment of Disease Caused by the Abuse of Stimulants and Narcotics: A Plea for the Suppression of the Nostrum, Patent Medicine, and Specific in Rational Therapeutics." After comparing scientific medication with charlatanism and showing the physiological action of alcohol on man and his offspring, as well as the diseases produced by indulgence, Dr. Mann passed to the subject of the Treatment of Disease of Inebriety. He recommended the following as a good tonic and sedative in Dipsomania, having a good effect on the stomach, and tending to antagonize both the degenerative changes in the brain, and the effects of alcohol on the structures of the body:

℞ Quininæ sulph.....grs. ii.
 Zinc. oxidi.....grs. ii.
 Strychniæ sulph.....gr. 1-40
 Arsenic.....gr. 1-100
 Capsici.....grs. ii.

M. et. ft. pill No. i. Sig.: One pill three times a day.

Together with this pill, Dr. Mann uses in his private hospital for sixteen days the following hypodermatic dosimetry:

℞ Strychnia nitrat.....gr. i.
 Aquæ dest.....3 ss.

M. Eight minims daily for eight days: 4 minims daily for another eight days. To quiet the morning nausea of alcoholics, two or three drops of wine of ipecac on the tongue, fasting.

The patient is kept in bed for the first few days, and fed on milk and meat juice for nourishment. Hydrotherapy and

electrotherapy are employed. To induce sleep, the following sedative is administered at night for a few days:

℞	Tr. opii deod.	}	ää	5 i.
	Ext. hyoscy. fld.			
	Chloral hydrat.			
	Pot. bromid.			
	Tr. capsici.			5 ss.
	Tr. aconit. rad.			℥ v.
	Aquæ menth. pip.			ad 3 iv.

M. et. Sig : Two tablespoonfuls at bedtime for a few days only, freely diluted with water.

If the patient is very much excited and is bordering on delirium tremens, the following is useful for two or three nights:

℞	Hyoscin. hydrobromat.	gr. i.
	Aquæ dest.	5 ix.
	Spt. vini rect ..	5 i.

M. et ft. hypodermatic solution. Sig.: Dose from 5 to 10 minims *pro re nata*.

The diet table in Dr. Mann's hospital consists of milk, eggs, oysters, meats, fish of all kinds, buttermilk and koumiss, plus a minimum amount of the cereals. Vegetables and starchy foods are allowed only very sparingly, the idea being to rely on a diet which requires the least vital force and oxygen to digest, assimilate and appropriate, and to have ingested into the body such materials as will, when brought under the influence of oxidation, yield energy, which is the expression of vital activity, and give the largest working power for the amount of food taken. By such a plan of treatment patients are sent out with restored health, the craving for alcohol gone, the lost will-power restored, the shattered nervous system built up, and with a concentration of energy, physical ability and mental activity obtainable by no other plan of treatment.

In order to render Dr. Mann's pill available to the medical profession, PARKE, DAVIS & Co., have added it to their list of gelatin-coated pills, which they are now prepared to supply in bottles of 100 or 500.

THE REVIEW

OF

INSANITY AND NERVOUS DISEASE

A QUARTERLY COMPENDIUM OF THE CURRENT LITERATURE
OF NEUROLOGY AND PSYCHIATRY.

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THE REVIEW

OF

INSANITY AND NERVOUS DISEASE.

FOR MARCH, 1894.

EROTOPATHIA.—MORBID EROTISM.

BY C. H. HUGHES, M. D., ST. LOUIS, MO.

Within the past few years the alienist and neurologist have become so familiar with so many strange and morbid perversions and reversions of the erotic sentiments and sexual passion that they must be considered and classified in their relation to society, morals and law. Science must severally category these perversions of proper and natural human passion, as they may be found to be purely psychological moral perversities or to belong among the neuroses or the psychoses, and determine in them respectively the resistless or resistable involvement of the will, separating the psychoses of sexual aberration from the simple neuroses of perverse sexual sensation and impulsion. The trend and purpose of the author's remarks is to further emphasize the fact that there is a neuropsychical instability of the organism dominating individuals to the extent of developing resistless aberrations of thought and conduct connected with the genesic sense, now attested by abundant clinical observation in the field of practical psychiatry, aberrations entitled to be classed among the insanities. A recent example is Alice Mitchell, the sexual pervert of Memphis, Tenn., who murdered her

fiancé, Freda Ward, whom she so ardently loved that she wished to flee with her, marry, maintain and live with her as a man would live with his wife. The love of mates has its root in physical sexual attractions, but has been greatly enhanced by psychical sympathies. Male and female are complementary and each in its own way. The functions of love, jealousy, intimacy, allied in the lower animals and the lower order of man with the sexual life has passed in process of the organic evolution of our species from an instinct of the lower organism to a place in the highest mind, regulated, restrained, influenced and influencing the sovereignty that resides in the intellectual centers of the cerebrum. Salacity and sexual perversity may be solely immoral, with no excuse in disease or pre-natal organic perversion. Sexual orgies, the most revolting, may co-exist with erotic disease on the part of some and without disease on the part of others who participate in them. We are confronted in this as well as in all other studies of perverted functions of the nervous system and superimposed mind with facts that belong alike to psychology and psychiatry, to neurology and neuriatry, namely, atavism, descent and direct hereditary transmission. To solve aright the problem of morbid erotism and psychopathia sexualis we shall often have to go back to the ancestral records of character so far at least as the grandparents, as we have to do in rightly determining other questions of psychiatry. There is as certainly a morbid erotism or propensity to excessively indulge the love passion as there is an alcoholism or alcoholic disease dependent upon an organic and inherited neuropathic or self-acquired instability deeply laid in the molecular movement of the nerve centers which underlie the expression, emotion and impulse of the individual. Besides the well-known illusional and delusional forms of perverted sexual feeling among females there are the sexual hypochondriacs among both male and female neuropaths. There are eroto-neuropaths and eroto-psycho-neuropaths, or, more properly speaking, there are neuro-erotics,

who have reached the stage of sufficiently marked mental derangement to be classed as insane. They are not markedly psycho-neuropathic in their erotism, but mainly unstably neuropathic. That is, though they have somewhat unstable nervous organisms in which a morbid erotism occupies and influences mind more than it ought, the mind in them has not yet become so weakened or disordered as that it sees not the perverted erotic feeling is wrong or sees not the propriety or necessity of resisting it. Later, if their malady progresses, they may claim the attention of the alienist. They are liable to become at any time, under environment favoring the development of their disease, psychopathic as well as neuropathic and to need from without the restraint they cannot exert from within upon themselves, over their erratic, perverse and destructive erotic inclinations—the restraint and seclusion from the world which a properly organized asylum for the insane alone affords these unfortunates. Sexual sensualism to which those of neuropathic heredity are often congenitally predisposed, yielded to, brings on neuropathic excess and perversion of the genital instinct. He or she develops into an erotic pervert or an erratic lover of his own sex—an “urning” or unnatural libidinous lover of a fellow being, organized like himself or herself. That sexual perversion is not necessarily mental disease may be proven not only by analysis but by the numerous cases wherein the perverted feeling is accompanied with psychical resistance, shame and regret. The individuality of the person, the family and personal history, the violation of the proprieties, the existence of a diseased state of the brain and nervous system, the impulsion or deliberation, the motives and the question of disease are always to be studied in every question of perversity or perversion. A change of character may be often noted in true neuropathic perverts. The author concludes that morbid erotism presents both normal and abnormal psychological aspects. It therefore presents a voluntary deviation from the ordinary and natural indulgence of the genesic instinct—the

normal, but immoral psychology of the eroto-sexual propensity, and instinctive, inherent, organic, dominant and often resistless involuntary perversions of this passion; the latter being the true abnormal and organically unnatural sexual perversion, the reverse or contrary sexual instinct. This is the psychiatric aspect of the subject, the one that most concerns us as alienists and neurologists. Love and the genesic sense are not one. Love ante-dates the birth and survives the decay of sexual feeling. Search out the complicating neurological and neuropathic factors and the predetermining neuropathic conditions, the neurology and neuriatry, immediate and ancestral, of these unique, morbid and unnatural erotic-genesic perversions. This inquiry involves a study of hystero-erotic attachments and aversions, erotic trances, ecstasies, beatitudes, divine amours, immaculate conceptions, etc., as well as the true "conträre Sexual-Empfindung" or psychopathia sexualis. In every study of morbid erotism the distinction between love and lust should be sharply drawn as between healthy erotism and perverted or debased sexual passion. The subject is primarily neither one of the sentiment or morals exclusively, but mainly of psychiatry, to the study of which the data of alienism and psychiatry should be rightly applied in all questions of medical, moral and forensic inquiry. Law, ignoring psychiatry, and dealing violently with some flagrant forms of sexual vice, punishes the criminal as a wholly responsible being, and allows him to return and pollute society, whereas psychiatric science, knowing how deeply laid those sexual perversions may be in degenerative nerve element, which law cannot correct, asks for their victim's perpetual sequestration from society, and a radical asexualizing surgical procedure. The author says that something, and in some instances, much, may be done for these victims of libido morbosus by treatment. Sexual and psychical eroto-erethism may be subdued, the mind and feelings turned back into normal channels, the homo- and hereto-sexual changed into beings of natural erotic inclination, with regulated restraint, by a suitable hygiene and therapy.—Abstracted from *Alienist and Neurologist*, October, 1893.

TRANSLATORS AND ABSTRACTORS.

ENGLISH.

T. H. HAY, M. D., MILWAUKEE, WIS.
B. M. CAPLES, M. D., WAUWATOSA, WIS.
T. W. BISHOP, M. D., CHICAGO, ILL.

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DUTCH.

WILLIAM SWEEMER, M. D., MILWAUKEE, WIS.

FRENCH.

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SPANISH.

H. M. BROWN, M. D., MILWAUKEE, WIS.

SWEDISH, DANISH AND NORWEGIAN.

HALDOR SNEVE, M. D., MINNEAPOLIS, MINN.

NEUROLOGICAL.

ANATOMY AND PHYSIOLOGY.

THE NERVE CELL CONSIDERED AS THE BASIS OF NEUROLOGY.
—This article, by Dr. A. E. Schafer, should have been abstracted in the previous number of the Review. The omission was due to an oversight. The article is profusely illustrated and the conclusions herein presented would be much more valuable could we reproduce the illustrations. The doctor's conclusions are as follows:

1. That every nerve-cell forms a structural element which is anatomically isolated from, but in physiological continuity with other nerve-cells.

2. That the physiological continuity of these elements depends on the contiguity either of ramified cell-processes of different nerve-cells with one another, or of the ramified processes of one cell with the body of another cell. By this contiguity such isolated anatomical elements become concatenated into nerve-chains which may be either simple, as in the nervous system of the earth-worm, and possibly in the ordinary reflex chain of vertebrates, or may be complicated to any imaginable extent.

3. That the same nerve impulses do not necessarily pass from one element of the nerve-chain to the next, but that more probably new impulses (often of different rythm) are generated in the successive elements of the chain.

4. That the new impulses so generated may be set going by the electrical chain which accompanies the advent of the producing impulses and are not necessarily due to the passage of those impulses themselves to the next element of the chain.

5. That either the body of the cell or any of its processes may be concerned both with the starting and with the transmission of nerve impulses; and, that these may originate by acts of contraction, causing waves of pressure or variations of surface-tension to traverse the fibrils.

6. That the body of the cell is especially concerned with presiding over the nutrition of the whole cell element; this

trophic function being intimately associated with the presence of the nucleus. Nevertheless, nerve-impulses may both originate in and be conducted by the cell-body. The dendrons or protoplasmic processes, being extensions of the protoplasm of the cell, may primarily serve to assist in the nutritive processes, as was supposed by Golgi, but they undoubtedly also, like the cell-body itself, may in some cases convey nerve-impulses.

7. That the ordinary centrifugal paths are blocked for centripetal impulses, although the centripetal paths may convey centrifugal impulses, this physiological difference being correlated with a difference of anatomical relationship at the junction of the respective cell-elements.—(*Brain*).

THE GENICULATE GANGLION AND ITS CONNECTED NERVES.—The anterior, thicker root of the facial nerve is mainly motor, the posterior root, which forms the nervus intermedius, sensory. The geniculate ganglion belongs principally to the intermediate nerve; it forms a triangle, whose internal angle is in relation with the greater superficial petrosal nerve, the posterior angle being connected with the nervus intermedius and the anterior angle with a bundle of fibers which mainly run to the chorda tympani. The larger root of the facial nerve is connected with this ganglion by a few fibers only, the exact relations of which have not been determined. Two anastomoses exist between the intermediate nerve and the acoustic nerve, fibers running from the intermedius to the acoustic and others going from the ganglion vestibulare to the facial. The great superficial petrosal nerve contains fibers which pass from the intermedius through the geniculate ganglion to the sphenopalatine ganglion, and sensory fibers which pass from the second branch of the fifth nerve, partly to the chorda tympani and partly to the peripheral portions of the seventh. It is probable that this nerve also contains fibers which, originating in the motor root of the facial, pass through the sphenopalatine ganglion to the descending palatine, thus innervating the muscles of the soft palate. It is probable that besides the fibers mentioned, others from the auricularis vagi, which possibly originate in the glossopharyngeal nerve, go to make up the chorda tympani. An addition of glossopharyngeal fibers by way of Jacobson's nerve and the greater and lesser superficial petrosal nerves is possible. The lesser superficial petrosal nerve has, however, no other part in the formation of the geniculate ganglion.—[*Anat. Anzeiger*, Nov. 21–22, 1893] (*Neurolog. Centralbl.*, Nov. 22, 1893).

TOPOGRAPHY OF THE WHITE AND GRAY SUBSTANCE OF THE CORD.—Tschernyschof has published (in the Russian language) the results of his examination of the cords of three children with congenital absence of one or more members. His conclusions are:

1. The pyramidal tracts are normal in cases of congenital absence of the extremities; they are absent when their connection with the cortex is severed.

2. The cortex is the exclusive trophic center of the pyramidal tracts.

3. In congenital absence of the extremities the posterior columns and their ganglia in the medulla are but slightly developed.

4. The nerve fibers for the upper extremity are contained mainly in Burdach's column of the same side, although,

5. A part of them are contained in the column of Goll of the opposite side.

6. In absence of an extremity, these columns are diminished in size in a sagittal (antero-posterior) direction, corresponding to the location of the missing fibers.

7. The fibers for the lower extremities are contained in the columns of Goll and Burdach of the lumbar and dorsal cord, and principally in their anterior portions.

8. There are no special groups of ganglion cells for the upper and lower extremities in the anterior cornua.

(*Neurolog. Centralbl*, Nov. 24, 1893.)

G. J. KAUMHEIMER.

THE LOCALIZATION OF FACE MOVEMENTS.—Dr. Brissaud recounts in the *Progres Medical* some recent investigations of his on the cortical localization of face movements in man. His subjects have exhibited recurring attacks of right hemiplegia, facial paralysis and aphasia during life. An autopsy revealed the following conditions: Situated in the superior sulcus of left insula, immediately posterior to frontal operculum, there was a soft yellowish mass. It was apparently superficial but on microscopical examination there were found to exist on internal border of left peduncle a number of granular bodies. A very careful inspection of the brain showed no other focus of degeneration. The frontal region of left hemisphere presented several anomalies, but the line of demarcation between the healthy tissue and the lesion was easily made out. The author had no doubt that this lesion was the cause of the facial hemiplegia, but according to the localization of leg and arm movements by other observers, there was no lesion of the brain to account for the paralysis

of those members. There was an involvement of the orbital and frontal muscles, but this was explained by the continuity of the fibers of the projection system. It was thought, considering the very small focus of the lesion, that the deduction from the study of the center of localization of face movements in man was unique. The author definitely located this center on the ascending parietal operculum immediately posterior to the inferior extremity of the fissure of Rolando. (*New York Med. Jour.*, Fed. 3.)

B. M. CAPLES.

THE SENSORY-MOTOR FUNCTIONS OF THE CENTRAL CONVOLUTIONS OF THE CORTEX CEREBRI.—Dr. Mott, in a recent article, alludes to the probable path of the sensory impulses, which Bastian had termed “kinæsthetic.” He believes the posterior column conveyed these impulses, especially the tracts which are implicated in locomotor ataxia. Anatomical and embryological researches had shown that the cortex cerebri, which is termed motor, is also concerned with the reception of afferent sensory impulses. The author is of the opinion from his own experiments that sensory defects arise after extensive ablations of the motor area in monkeys. In his experiments he did not remove the portion of brain, but merely separated all its connections by introducing a brain knife. Paralysis and defective sensibility occurred invariably on opposite side. If the whole leg area were removed, paralysis of the opposite leg, diminished sensibility of limb to all forms of stimulus for some days after operation, permanent blunting of sensibility to pressure of weak clip placed on sole of foot. If the whole motor area be separated from its connections there is permanent paralysis of fine movements of hand and foot and paresis of other muscles. In such cases there is return of coarse associated movements of hip and knee, head and neck, much of which, he thinks, probably due to lower centers taking on functions and not the opposite hemisphere. Parts that remain permanently paralyzed never recover tactile sensibility.

The author inferred from his experiments that a permanent defect of tactile sensibility, especially of hands and soles of feet, undoubtedly occur after large lesions of motor area. He observed considerable degeneration of fibers which radiate to grey matter of the cicatrix and brain degeneration very marked in internal capsule and to an appreciable extent in corpus callosum and the striæ medullares of the optic thalamus. He observed no descending degeneration on the posterior longitudinal bundle of fillet even where the whole

motor area had been involved. He was of opinion that the removal of these centers gave rise to more degenerated fibers passing down the same side of the spinal cord as the lesion, partly in the median fissure, "the direct tract," also in the crossed pyramidal. Examination revealed no injury to gyrus fornicatus in most cases, in author's opinion certainly not enough in other cases to account for the defect of sensibility. In his opinion, Munk's criticisms against the gyrus fornicatus and hippocampal gyrus being special centers largely, if not exclusively for the appreciation of sensation, painful and tactile, was in a great measure valid. He would explain the undoubted sensory defects that arise from lesion of this portion of the brain by a destruction of the sensory fibers just after emergence from the internal capsule, although he admitted that the gyrus fornicatus may share in this function. A convincing argument in favor of the sensory-motor functions of the Rolandic area was brought forward by Dr. Horsley, who found undoubted sensory defects following removal of large portions of the Rolandic area in man. Starr, from an experience of thirty cases of cerebral operations, consisting of excisions of portions of the motor zones, thinks it is clearly determined that the tactile sense centers are situated in the Rolandic area, especially behind the fissure of Rolando. (*British Medical Journal*, Sept. 23, 1893.)

B. M. CAPLES.

PHYSIOLOGY OF THE CORPUS CALLOSUM.—Muratoff states that numerous experiments, consisting of section of the corpus callosum, excision of the cortex, or combinations of these two, tend to support Meynert's views, that the corpus callosum is a commissure, containing fibers connecting the hemispheres. The degenerated area after excision of parts of the cortex is exactly proportional to the size of the part excised, and the degenerated fibers can be followed to the cortex of the other side. The fibers of the corpus callosum have no connection with the internal capsule. The trophic centers for the corpus fibers seem to be situated in both hemispheres. In section of the corpus, the fibers from the opposite side, in lesions of the cortex, the fibers of the same side were found degenerated. In combined lesions, a double and more extensive degeneration was found. The general direction of the fibers of the corpus callosum is frontal, at its anterior and posterior extremities the fibers must necessarily take a curved course. It is a matter of extreme difficulty to

determine the finer physiological lesions resulting from section of the corpus callosum, as the results are obscured by slight but unavoidable injuries of the cortex. (*Neurolog. Centralbl.*, No. 21, 1893.)

G. J. KAUMHEIMER.

MORPHOLOGICAL DIFFERENCE BETWEEN THE AXIS CYLINDER AND THE PROTOPLASMIC PROCESSES UNDER NISSL'S STAIN.—Dr. Karl Schaffer has noticed in nervous matter stained by Nissl's method, that only one process proceeding from a ganglion cell remained free from chromatin bodies. These bodies, distributed through the cell body, were absent from a segment from which this homogenous process proceeded. He believes that the fact that the anterior spinal root, which contained no protoplasmic processes, show no chromatin bodies, goes to prove this assumption. In fact, in one case he was able to follow one such fiber directly into an anterior root. (*Neurolog. Centralbl.*, No. 24, 1893.)

G. J. KAUMHEIMER.

THERMOGENIC POWERS OF ANIMAL TISSUES.—Roger (*Rev. Internl. de Biblio. Med.*, No. 20, 1893,) states that the muscles contains thermogenic substances particularly abundant where the extract is prepared hot. Urine discharged during fevers exerts a hyperthermic action as opposed to the hypothermic action of normal urine. There exist in all the organs (heart, lung, liver, spleen, supra-renal capsules, brain, cord, thyroid body) substances which injected into the veins exhibit thermogenic properties. When these accumulate in the system they exert an ætiological influence in the production of toxic fevers by auto-intoxication.

J. G. KIERNAN.

A METHOD OF STAINING CONNECTIVE TISSUE.—Beneke describes a modification of Weigert's fibrin method by which the connective tissues of the most diverse organs can be consistently stained. Among these is the brain, the spider cells and their prolongations. The finer fibrous networks between pia and cortex and around the ventricles are stained by the process. The fibrous meshwork of sclerosed tissue is shown remarkably well. The author's method is as follows: Portions of tissue fixed in alcohol are cut in paraffin sections, fixed upon a slide and stained with aniline gentian violet (10 parts aniline oil shaken into one emulsion with 100

parts water and filtered, add to the filtrate 5 to 10 parts concentrated gentian violet alcoholic solution) for ten to twenty minutes. Treat for one minute with Lugol's solution of a port wine tint, dry with filter paper, and decolorize with aniline xylol (aniline oil 2 parts, xylol 3 parts). Experience is necessary to decide the amount at which to stop further decolorization by the action of xylol. Mount in xylol balsam. The connective tissue fibres are stained various shades of violet. (*Brit. Med. Journal*, September 2.)

B. M. CAPLES.

PATHOLOGY AND SYMPTOMATOLOGY.

SARCOMA OF PIA AND BRAIN, SIMULATING BRAIN TUMOR; MONO-SPASM AND MONO-PARESIS; OPERATION.—Dr. Eskridge has an article in the *Journal of the American Medical Association* of Sept. 30, entitled as above. Patient had had syphilis. Patient had begun to have uncomfortable feelings in the back of his head some years after contracting syphilis, two years later, seized with general convulsions which lasted three or four hours, was unconscious several days. Later on these convulsive seizures became more frequent, usually there was no loss of consciousness. Immediately after the convulsive seizures speech is impossible. The left side of the face is paralyzed. He was given very large doses of iodide of potassium, taking as much as 125 grs. a day. Convulsive seizures were lessened, patient gained in flesh. Tumor in lower Rolandic region diagnosed. Patient later became very much depressed mentally; left side of face still continues paretic. Operation showed the pia opaque and greatly thickened; brain substance is darker and firmer than normal. Patient died fifty-three hours after operation. On carefully sectioning the brain no gross lesions were found except in the lower Rolandic region, especially in the lower face center, where cortical substance seemed abnormally dark.

B. M. CAPLES.

CEREBRAL HÆMORRHAGE ASSOCIATED WITH NARROWING OF THE AORTA.—Dr. Chas. E. Nammack, in reviewing the literature, finds a large number of cases of narrowing of the aorta, but in very few has cerebral hæmorrhage been associated.

Anomalies of the aorta are generally not mentioned in the etiology of cerebral hæmorrhage, and with the exception of Dana, the general opinion seems to be that a diseased arterial wall is the essential local factor in producing cerebral hæmorrhage. Dr. Nammack's case is of interest on account of the small aorta and the error in diagnosis. Patient, male, apparent age 22, was found in complete apoplectic coma, with pale face, cold skin, strong, regular and rapid pulse. No vomiting or convulsions. Stertor absent; pupils dilated equally and immobile; hemiplegia on left side. Endocardial murmurs heard at both mitral and aortic orifices. Diagnosis, cerebral embolism. Autopsy showed an extensive pial hæmorrhage, abundant over the pons and along the course of the right middle cerebral artery and its branches. Aorta measured, when laid open, $5\frac{1}{4}$ cm. above the cusps; thoracic aorta 4 cm.; abdominal $3\frac{1}{2}$ cm. Walls appeared normal. There was a general syphilitic arteritis and this condition, rather than the narrowing of the aorta, was the efficient cause of hæmorrhage. (*Med. Record*, Dec. 2, 1893.)

R. W. ROHRDANZ.

GENERAL WEAKNESS OF MEMORY, DUE TO LOCALIZED CEREBRAL LESIONS, WITH REMARKS ON THE TOPICAL DIAGNOSIS OF THE OPTIC THALAMI.—Weak memory, caused directly by a localized cerebral lesion, excepting tumors, is rarely heard of and it is generally believed that the disturbance of memory following such lesion is due to the atrophic influence of the latter on other parts of the cerebrum. Fournier, in a monograph on cerebral syphilis (*Syphilis du cerveau*, 1879, p. 278) mentions a form of amnesia, occurring exceptionally, in which loss of memory is sudden, similar to motor paralysis in apoplexy. He cites a case of lues, in which the patient, with somewhat weakened memory, awoke one morning with complete amnesia.

Prof. A. Pick records two cases. The first patient had a slight apoplectic attack, with little disturbance of consciousness or speech. Whole right side, including face, is parietic. Memory for present events is very poor; often does not recognize his wife and children. Memory of the remote past is intact. Probable diagnosis is cerebral softening, due to specific arterial disease.

Case 2: Patient, male, age 31; admitted to clinic March 29. At 20 acquired syphilis; was treated by inunctions. Married at 29. Had one child, which died soon after birth. Last year had frequent attacks of vertigo—in October, '92, had an apoplectic attack, followed by another three weeks

later, both accompanied with left-sided hemiplegia. Since then has been bed-ridden and lately, violent, so that commitment to an asylum became necessary. When first seen, the whole left facial nerve area, including temporal branch, was paralyzed, especially noticeable when patient laughed, the left side remaining expressionless. Left extremities paretic; reflexes exaggerated, with ankle clonus; right side normal; cremaster and abdominal reflexes normal on both sides; homonymous left-sided hemianopsia. Cutaneous sensibility unchanged. Psychologically, the apathetic manner of patient and marked amnesia were striking. Was much confused as to time and place—said he was born in 1880; present date, 1893, hence was 31 years old. Articulation not much disturbed; in reading omitted words and numbers. Memory of remote past intact. Inunctions and iodide of potash improved the psychical and physical condition, especially the facial paralysis. The writer regards this case as a good example of the combination of paresis of the voluntary and emotional facial innervation, and according to Nothnagel's hypothesis, that the optic thalami and their connecting paths are intact if, in a case of localized cerebral lesion with hemiplegia and facial paralysis, the voluntary movements of the facial muscles is lost while the reaction of both sides of the face to psychical emotion, as laughing and crying, is normal, we must assume that the optic thalami and internal capsule are affected in this case. The homonymous hemianopsia confirms this diagnosis. The patient's age, the sudden appearance of the symptoms and the absence of tumor symptoms, lead to a diagnosis of cerebral softening, resulting from luetic arterial affection. Future observation must determine whether this sudden defective memory after apoplexy, thus far observed only in luetic patients, is a specific effect of syphilis, and, therefore, of possible diagnostic value. (*Prag. Med. Wochenschr.*, No. 37-38, 1893.)

R. W. ROHRDANZ.

ANÆSTHESIA DUE TO CORTICAL LESIONS.—Dr. T. Stacey Wilson writes an article in which he draws attention to the fact that many of the ordinary cases of anæsthesia from cerebral disease seem to be explicable only on the supposition that the Rolandic area of the brain possesses sensory as well as motor functions and that these can be taken as evidence in favor of this theory and against that which localizes sensation in the gyrus fornicatus and the hippocampal region. The striking feature in many of these cases is that anæsthesia is associated more permanently with such symptoms as

paralysis of the arm or face than with paralysis involving the leg or trunk. If there is evidence that the lesion is a cortical one rather than one in the posterior part of the internal capsule, we have strong evidence in favor of the Rolandic theory. A localization of sensation on the mesial aspect of the hemisphere would require the association of anæsthesia with paralysis of the leg and thunk, since their motor centers and motor tracts are nearer the middle lines than those of the arm. Similarly, were sensation localized in the hippocampal region, the same association would be expected so far as the sensory tract is concerned and it is not easy to see how the same slight lesion could, upon this supposition, cause both paralysis of the face and arm and anæsthesia. If the Rolandic area have sensory as well as motor functions, the various phenomena connected with occurrence of anæsthesia are easy of explanation. He gives several cases illustrating his theory. (*British Medical Journal*, Sept. 23, 1893.

B. M. CAPLES.

A CASE OF PARTIAL ATROPHY AND POROSIS OF THE BRAIN, WITHOUT SYMPTOMS DURING LIFE.—Birulja (*Wjestnik Psichiatrui*, 1893, Bd. X.) reports the case of a soldier who died of acute peritonitis. Autopsy showed a decided atrophy of the left half of the cerebrum, this part weighing 1133 gms, 107 gms. less than its fellow. The central convolutions were 2 cm. shorter on this side, and the convolutions around this part were highly atrophic. Besides this there were scattered throughout the entire encephalon, including the basal ganglia and pons, an enormous number of cavities, varying in size from those barely visible to some 2 to 2.5 cm. in diameter. These were so numerous in the pons, that its section looked like a piece of Swiss cheese. Fluid was not found in these cavities. Microscopic examination showed that the nervous elements were intact up to the very edge of these cavities. In some of them a delicate membrane, containing isolated nuclei, was found. This, the author thinks indicates an endothelial lining and an origin in the dilatation of perivascular lymph spaces. There were no secondary degenerations. The case is remarkable from the fact that neither of the lesions caused any symptoms during life, although the atrophy was confined to the psychomotor region. (*Neurolog. Centrabl.*, No. 21, 1893.)

G. J. KAUMHEIMER.

IMPULSIVE OR INSUPPRESSIBLE LAUGHTER IN CEREBRAL PALSY.—Bechterew describes a symptom which he says is not so very rare in cerebral paralysis, although but little

attention has been paid to it. In this case there was, besides a left sided paralysis, stupor and somnolence, as well as a very lacrymose disposition, so that the patient, a man, burst into tears if spoken to. Besides this, he was noticed several times a day to burst into fits of uncontrollable laughter, lasting up to two hours. It could not be induced by tickling, nor could the patient give any reason for his laughing. Neither could he suppress it at all, although he knew it was unseemly and out of place, until his general health had greatly improved. B. concludes that there existed in this case a syphilitic affection of the right sylvian artery, with secondary cortical softening. As experiments by himself and others indicate that the thalami have a part in the expression of the emotions, he concludes that the impulse originated in these bodies. He believes that the cortical softening caused failure of inhibition rather than that it was the cause of the impulse itself, as the laughter required at least some minimum external or internal impression to start it. He also demonstrated a second case, a hemiplegic, who presented this symptom. (*Neurolog. Centralbl.*, No. 21, 1893.)

G. J. KAUMHEIMER.

THE PRESENCE OF LEAD IN THE BRAIN, AND LEAD POISONING.—Ebstein reports the case of a man aged 43, lacquerer by trade. His history showed that he had suffered with symptoms of chronic interstitial nephritis, and had had lead colic eight years previously. Necropsy showed contracted kidneys with hypertrophied left ventricle of the heart, pneumonia and œdema of both lungs. Copper found in muscles and brain, probably due to the man's trade. No blue line on the gums, no lead found in muscles, but it was detected in the brain. The author points out the interest of this observation in relation to the etiology of encephalopathia saturnina. This has been attributed to the presence of lead in the brain. In the present case lead was detected in the brain, although there was no history of encephalopathia saturnina, while in one of Oliver's cases of this affection no lead could be detected in the brain. (*Brit. Med. Journal*, Jan. 6.)

B. M. CAPLES.

SUPPURATIVE OTITIS FOLLOWED BY CEREBRAL SYMPTOMS.—Gellé describes a case of post-influenzal otitis in which escape of pus was not followed by relief of pain. Severe headache, violent pain in and in front of ear, down vascular groove of

neck; there were enlarged glands. Mastoid free from tenderness or sign of disease. After two days discharge of pus ceased, but rigors, fever and pain set in with great intensity. Swelling developed on floor of meatus, blocking passage. On incision free escape of pus and exposure of bone. Irrigation practiced for eight days. Symptoms improved considerably. Two days later violent headache returned; hectic condition came on, and patient died comatose after a week. There was basal pachy-meningitis and generalized purulent meningitis. Lateral sinus thrombosed and totally obliterated. Internal auditory meatus normal. The author insists on the excavation being carried parallel with the direction of the meatus. The profound constitutional disturbance in the absence of local mastoid symptoms suggest purulent meningitis. In this case extension took place by microbe invasion by all the elements of the tissues, lymphatics, cells, etc. The condition of the tympanum indicated old disease. (*Brit. Med. Journal*, Aug. 26.)

B. M. CAPLES.

CEREBELLAR ABSCESS.—Koch reports two cases, the first with caries of middle ear complained of headache, vomiting and constipation. The mind was dull. The mastoid antrum was opened, granulations removed. Nine days later suddenly became unconscious, with stertorous breathing; died in half an hour. In right cerebellar hemisphere an abscess the size of a pigeon's egg was found. Second case suffered from otorrhœa, suddenly became worse, with pains in head, vertigo and nystagmus. Mastoid opened; granulations found; upper wall of antrum, much thinned by disease, was taken away, and dura mater seen to be dull white and thickened. Four days later symptoms again appeared, vomiting, vertigo, headache, slight slowing of the pulse. Patient died and abscess was found in the anterior and upper part of the left cerebellar hemisphere and almost limited to the grey matter. (*Brit. Med. Journal*, Dec. 2.)

B. M. CAPLES.

CEREBELLAR SYPHLOMA.—Syphilomata are rarely met with in the cerebellum, according to Gowers, hence Dr. Chas. E. Nammack reports the following case: Patient, male, aged 44, complained of dizziness, vomiting, unsteadiness in walking, double vision, bilateral occipital headache, and "machinery" noises in the left ear. Has never had a convulsion. In

standing, patient keeps feet widely separated and has a tendency to fall to the right side. No inco-ordination in upper extremities, nor in lower extremities in supine position. Gait is staggering; knee-jerks exaggerated. There is history of lues, treated until eruption appeared. Scalp is sensitive to pressure; ticking of watch not heard in contact with left ear. Both drum heads apparently normal; tuning fork heard best on unaffected side. Diplopia in left eye, one image being below and to the left of the other. Nystagmus also evident. Ophthalmoscopic examination revealed no sign of optic neuritis; bloodvessels normal in size; no tortuosity; no swelling of disks, outlines clear and distinct. Diagnosis: syphilitic neoplasm in left cerebellar hemisphere, with pressure on abducens and auditory nerves. Under five weeks treatment with potassium iodide, the dizziness, headache and double sight disappeared, ataxia, nystagmus and exaggerated knee-jerks remained. (*Med. Record*, Nov. 4, 1893.)

R. W. ROHRDANZ.

CHOKED DISC.—Adamkiewicz concludes, after numerous experiments on rabbits: 1. The introduction of any indifferent body which diminishes the capacity of the cranium is not followed by any disturbance of circulation in the fundus of the eye. 2. The result is the same, if the body introduced be of such a nature as to cause a gradually increasing encroachment on the cranial capacity. 3. If a colored indifferent fluid is introduced into the cranium under a considerable pressure the veins of the choroid are seen to be filled exactly to the edge of the optic papilla. The vessels of the papilla, especially the venæ centrales retinæ, do not take part in this artificial congestion. 4. The production of an artificial encephalitis, as well as the removal of various parts of the brain, in order to test their trophic influence on the optic nerve, had no result. 5. Occasionally, after severe compression of the opposite hemisphere, the entire eye takes on an inflammatory action, which must be considered as neuromyolytic in nature. The results of these experiments on animals go to prove that choked disc cannot be explained on mechanical grounds. (*Neurolog. Centralbl.*, No. 23, 1894.)

G. J. KAUMHEIMER.

ACUTE POLIOMYELITIS IN AN ADULT.—Bikeles reports a case of a man, 58 years of age, attacked with diarrhœa and feeling of weakness two months before, ten days later paræsthesia of the right and then left arm noticed, paresis then came on in

the same order and spread to both inferior extremities simultaneously. A few days after there was difficulty of micturition, lasting a week. Spontaneous pains and tenderness of the muscles on pressure, especially those of the calf, existed. No nerve trunks were tender, back muscles were weak, other trunk muscles not affected, cranial nerves normal. In the limbs close to completely paralyzed muscles were others only slightly affected. There was no contracture. The reflexes were abolished in the left inferior extremity and gradually diminished in the right; those of the upper extremity were preserved; sensibility normal. The intrinsic muscles of the hand were atrophied and some other muscles presented the "reaction of degeneration." The atrophy and the altered electrical reactions were considered against the possibility of the case being one of Landry's paralysis; the gradual onset against hæmorrhage and against multiple neuritis, chiefly the symmetrical atrophy of the intrinsic muscles of the hands. (*British Medical Journal*, Sept. 23, 1893.)

B. M. CAPLES.

LESIONS OF THE SPINAL CORD WITH FRACTURE. — Dr. Thomas H. Manley reports five cases of fracture of the cervical vertebræ, the lesions produced, the treatment and its results, and summarizes his conclusions arrived at from clinical study and experimental observations on animals, as follows: 1. Grave injuries of the spinal cord, from injury in the neck, without fracture, are rare. 2. When paralysis immediately follows cervical injury, it clearly establishes the fact that the cord has borne serious damage. 3. That fractures which involve the respiratory centers (from the atlas to the fifth) are almost inevitably mortal. 4. Those below this point are sometimes within the range of operative relief when the apophyses alone are involved, and are not so dangerous to life. 5. Fractures through the anterior osseous plane of the vertebral column, the bodies in the cervical and other regions are not recognizable during life, and are more common than is generally supposed. 6. The apophyseal type of fracture through the posterior plane is the most easily recognizable, and may be occasionally amendable to surgical measures. 7. Fractures here, as in all other segments of the rachidian structures, are characterized by a tendency to resist displacement, and when this does occur, to spontaneous reposition. 8. The cervical segment of the column may sustain permanent injury without the association of medullary lesions of any description which entail paralysis. (*Med. Record*, Oct. 28, 1893.)

R. W. ROHRDANZ.

A CASE OF HÆMATOMYELIA.—Demonstrated by Dr. Bikeles before the Vienna Medical Club. Patient, male, fell from a barn, landing on his shoulders and neck, with head flexed. Sudden paralysis of both arms and inability to raise trunk. Gradual improvement after a few days. One month later, patient grew worse. At present there is loss of motion in interossei and thenar group of muscles of both hands; electrical reaction normal. No paresis of lower extremities. Patellar reflex exaggerated slightly; ankle clonus present on right side. Tactile sensibility normal. At level of umbilicus analgesia of left and hypalgesia of right side. Thermo-anæsthesia of left buttock, left lower extremity, intercosto-humeral nerve areas of both sides and upper intercostal of right side. Diminished thermic sensibility in other parts of right side corresponding to anæsthesia of left side. B. considers the early paraplegia an effect of shock; the other pathological symptoms a result of a myelitic process in the crossed pyramidal and cerebellar tracts of the lower cervical cord; also of multiple hæmatomyelia as shown by the disappearance of thermo-anæsthesia found also on the right side of abdomen and right upper arm at the first examination. (*Wien. Med. Presse*, No. 47, 1893.)

R. W. ROHRDANZ.

ACUTE OSTEOMYELITIS OF THE VERTEBRÆ.—Dr. Richard Morian has met with two cases of this rare affection. Its diagnosis from meningitis may be difficult and the resulting abscess may break into the vertebral canal, causing an inflammation of the membranes. The disease begins with the general characters of an acute infection: chill, fever, malaise, headache and want of appetite; a decided pain is constantly referred to a certain part of the spine, which is found to be tender on pressure. The patient lies stiffly in bed, being unable to rise without help, and holds the body in a rigid position. In the second case reported the patient, on the fifth day, lay with his head pressed back into the pillows, with hard and rigid back and neck, unequal pupils and diminished reflexes. On account of these symptoms, a meningitis was suspected. The patient soon locates the pain more definitely over some one spinous process, over which the superficial veins become congested, followed later by œdematous swelling, proceeding from the deeper tissues to the skin. In from one to two weeks, fluctuation may be detected at the side of the spinous process. Incision will evacuate pus, and the sound, touching the necrotic bone, will definitely clear up the diagnosis. After incision the temper-

ature usually falls and most of the symptoms are relieved, especially those referable to the cord. If the pus should find its way into the vertebral canal, it will probably spread throughout the extradural connective tissue, causing, however, intense irritation of the dura and pia by its intense phlogogenic properties. In the author's second case, involving the twelfth dorsal vertebra, the pus had spread from the third cervical to the third lumbar vertebræ. The dura was thickened to 2 mm. and as well as the pia, intensely injected. The first case recovered, the second died of pyæmia. Up to 1887, only four cases of this disease had been reported. (*Deutsch. Med. Wochenschr.*, No. 48, 1893.)

G. J. KAUMHEIMER.

COMPOSITION AND CHARACTER OF THE CEREBROSPINAL FLUID IN DIFFERENT DISEASES OF THE BRAIN AND ITS ENVELOPES.—Lichtheim has not had encouraging results from this procedure, having used it in a number of cases of acute hydrophalus, tumors and meningitis, without observing relief of intracranial pressure. Quincke, who originated the method, has lately expressed a very cautious opinion of its value as a therapeutic resource. As a *diagnostic* measure, however, Lichtheim values it very highly. It is as important as exploratory puncture of other cavities and as easily carried out. The needle is inserted in the third lumbar interspace. It gives information as to the chemical composition of the fluid. In cases of tumor the fluid is less albuminous than in tubercular meningitis, although an exact division cannot be made. In six cases of tumor, the proportion of albumen varied from a trace to 0.8 part per thousand; in six cases of tubercular meningitis it varied from considerable (one case) and 0.5 per thousand (one case) to 1.6 parts per thousand. Quincke claims to have found 7 % of albumen in a case of tumor. In a case of abscess 0.70 parts per thousand were found. The inflammatory fluid always coagulated in part; the fluid from the tumor cases rarely coagulated. In fluid from tumor cases, sugar was invariably found by the phenylhydrazin test; in inflammatory fluid it was very rarely found. Again, puncture gives evidence as to the physical characters and and bacterial contents of the fluid. In three cases streptococci, in one, the pneumococcus was found. In six cases of tubercular meningitis the tubercle bacillus was found in the evacuated cerebrospinal fluid in four cases. (*Deutsch. Med. Wochenschr.*, No. 47, 1892.)

G. J. KAUMHEIMER.

SYPHILITIC SPINAL PARALYSIS.—Kowalewsky says the disease is almost confined to males between 30 and 45 years of age; development slow; disturbance of bladder function often one of earliest indications. In addition to symptoms resembling spastic paraplegia, there are sensory disorders of diverse kinds, sometimes trophic derangements. Spasticity of gait is not always observed and never so marked as in lateral sclerosis. Muscular rigidity and increase of deep reflexes are less pronounced than in spastic paraplegia. In 152 cases of syphilis of the central nervous system treated by the author during 1892 there were thirty-eight affected with tabes and twenty-one with syphilitic spinal paralysis. In all the latter there was functional derangement of the bladder, mostly shown by inability to restrain detrusor action whenever the desire to micturate arose. The rectal function was similarly deranged in many of the cases. Increased myotatic irritability was a constant condition. Great exaggeration of the thermic reflex in the lower limbs was found to be a characteristic peculiarity of the disease; cold or heat applied to the lower extremities evoked strong convulsive contraction. The psycho-physical reaction time for tactile and painful stimuli was normal or slightly shortened—the opposite condition to that obtained in tabes. (*British Medical Journal*, Sept. 23, 1893.)

B. M. CAPLES.

SYPHILIS AND THE SPINAL CORD.—Gerhardt, in an address before the Berlin Medical Society, sketched our present knowledge of this subject. This knowledge is an attainment of the last two decades, and there are still a great number of questions to be answered. The clinical study of a case very often does not allow us to say more than that a certain case *was* of a syphilitic nature, mainly because specific medication cured it. We must strive to obtain a knowledge of the symptoms which will enable us to make such a diagnosis before treatment. In eight years, at the Second Medical Clinic at Berlin, thirty-nine cases of undoubted cerebral syphilis and nine doubtful cases were seen. In the same time, nine reasonably certain cases and one doubtful case of spinal syphilis were observed. This would give a proportion of the two of 1 to $4\frac{1}{2}$, against Mauriac's figures of 1 to 8. In regard to the forms of the disease, we must remember Virchow's saying, that cerebral syphilis is as multiform as that of the skin, and that of Jürgens, that spinal syphilis has as many different forms as cerebral syphilis. Among the nine cases observed by Gerhardt were two cases of syphilis of the

spinal column, although both presented cord symptoms. One involved the fourth cervical vertebra, ending in recovery, the other, the eleventh dorsal, terminating fatally. Involvement of the spine may take place by descending processes from the cranial bones, from ulcerations of the pharynx and from traumas. Altogether, it is rare, twenty-one cases of tubercular and seven cases of traumatic lesion of the spinal column being observed during the same period in which the two cases of syphilis were observed. Of the contents of the spinal canal, the cord and nervous substance are but seldom the primary seat of the lesion. The vessels and membranes are most often involved and from them the process extends to the cord. A progress by steps is characteristic of spinal syphilis. Gumma is, in by far the greater number of cases, solitary, although the reported cases are not numerous. Two separate gummata may, however, occur at different levels or on opposite sides. The arterial distribution usually restricts the growth of the gummous tumor to a lateral half of the cord, producing a more or less complete Brown-Sequard paralysis. Although a number of cases have been reported in which spinal symptoms supervened within three months after infection, others have been observed in which ten to twenty years had elapsed since the subject became syphilitic. No clinical difference has been noted between the precocious and tardy forms. The process, in some cases, descends to the cord from the cranial cavity, in others its advance is in a reverse direction. In this manner we may get various combinations of para- and hemiplegia, a triplegia, as G. terms it. "Although we must admit that in the majority of cases the disease is found in the membranes, many phenomena of the clinical picture indicate that the involvement of the vessels is the primary lesion." Among these are the paraplegias which occur quite often, suddenly, and may set in at any time in the course of the disease. Besides these forms, there has been described a muscular atrophy of syphilitic origin, (poliomyelitis anterior syphilitica); some cases of acute ascending paralysis, and multiple root neuritis, as described by Kahler and Buttersack. Gerhardt has observed four cases which presented the picture of the syphilitic spinal paralysis of Erb and believes, in opposition to Oppenheim, that it is a distinct form of the disease, although its anatomical substratum is at present unknown. It seems to be a relatively benign form of spinal syphilis, slow in progress, without tendency to dangerous complications (decubitus, cystitis or extension to the medulla) and readily amenable to treatment. Syphilitic disease of the spinal column usually attacks the cervical vertebræ. In regard to prognosis G. believes the same rule to

hold good as in cerebral syphilis. Cases in which there are softened areas or ascending or descending degeneration cannot be completely cured. If the cases be treated persistently, energetically and early, as soon as the diagnosis is made, and an early diagnosis is practically the most important point, the majority can be cured. He then adds his views of the relations of syphilis and tabes. In 102 cases of tabes, in which a careful previous history was taken, 50 % had had syphilis. This agrees with his experience before coming to Berlin. The proportion of cases of tabes in his clinical material was six per thousand; in all departments of the Berlin Charité, four per thousand; in Würzburg 8 %. The average time elapsing from an infection to the appearance of tabes was about ten years; in spastic paralysis, about four years. Anti-syphilitic treatment is always indicated, although very frequently futile. The justification of specific treatment is greater the earlier the appearance of the symptoms of tabes, the better nourished the patient and the more numerous the evidences of active syphilis. In private practice a far greater number of cases of tabes can be cured than in hospitals. In the discussion on this paper, A. Fränkel states that his figures in regard to the frequency of antecedent syphilis in tabetics agreed with that of Gerhardt. In males 63 % of forty-nine cases, in females 20 % of nineteen cases were found to be syphilitic. Mendel believes 70 % to be nearer the truth, especially in regard to men. The difficulty of obtaining a reliable history of syphilis in women is so great that the resulting statistics are not of much value. Senator believes that syphilis prepares the soil for tabes, but that the latter is not a specific disease, no more so than the amyloid degeneration which so often follows syphilis. He states that 70 % of the tabetics presenting themselves at the polyclinic have had syphilis. G. Gutman states that in some cases he had seen great improvement in optic atrophy accompanying tabes after mercurial treatment. G. Lewin spoke as a syphilologist. He saw but few cases of tabes, but had in the course of thirty years seen about 150 cases. All of these had admitted syphilitic infection, but a good many were mistaken, and he attributes Fournier's percentage (94 %) to a similar error. He had noticed a great deal of looseness in the diagnosis of syphilis in the writings of neurologists. A scar on the genitals is in the vast majority of cases the result of a soft chancre, not of a syphilitic sore. Similar doubt must attach to the stories of eruptions, sore throat and laryngeal affections, the nature of which frequently puzzles the specialist and which certainly cannot be definitely stated by the patient many years after. Laryngeal affections are much

more rare in syphilis than is generally supposed. Neither are enlarged glands a sure sign of antecedent syphilis. He believes Gerhardt's estimate to be as near the truth as can be determined. From the standpoint of the pathological anatomist, Virchow stated that the connection of tabes and syphilis was certainly not clear. While not denying the possibility of such a connection, he would have to hold, for the present, to the verdict "not proven." (*Berlin. Klin. Wochenschr.*, No. 50, 1893.)

G. J. KAUMHEIMER.

ABSENCE OF THE SENSATION OF FATIGUE IN A TABETIC.—The man in whom this condition was observed exhibited ataxia with partial analgesia and defect of tactile and muscular sensibility in all his limbs, more especially the left. Prolonged action of the muscles of the upper extremities was unattended by sensation of weariness. The patient could hold his arms extended horizontally for 25 minutes without experiencing fatigue at the time or subsequently. If he kept his eyes open during the experiment there was no sinking of the limbs from the horizontal position, but when tested with closed eyes the left arm slowly sank until contact of the hand with a neighboring body informed the patient of the altered position. (*British Medical Journal*, Oct. 7, 1893.)

B. M. CAPLES.

TABES WITH EXTENSIVE IMPLICATION OF THE CRANIAL NERVES.—Dr. F. Chvostek reports this interesting case: The patient was 39 years old and developed a severe case of tabes eighteen years after infection with syphilis. The first symptoms on part of the cerebral nerves were laryngeal crises and periods of dyspnoea, which occurred after the general symptoms had become well established. On examination, two years after the first symptoms were noticed, the following condition was found in addition to the usual one: A distinct zone of almost complete anæsthesia at the level of the sixth rib, gradually shading into normal sensibility above and below, bilateral partial external ophthalmoplegia, anæsthesia and paræsthesia in the area of the fifth nerve, left abducens paralysis and atrophy of the muscles supplied by the right motor trigeminus, diminution of the sense of smell, difficulty in swallowing, bilateral paralysis of the posterior crico-arytenoid muscles, more pronounced on the right side, and absence of faucial reflex, although sensibility was there intact. There was also persistent tachycardia. Later the paralysis of the right side of the face increased,

some paresis of the masticatory muscles on the left side and a paralysis of the muscles supplied by the right facial nerve, with the exception of its frontal branch, developed. At the same time there was detected an increasing paralysis of the left side of the thorax, which later became almost complete, although no local cause could be detected for it. (*Neurolog. Centralbl.*, No. 22, 1893.)

G. J. KAUMHEIMER.

MULTIPLE NEURITIS AND ACUTE ASCENDING PARALYSIS FOLLOWING INFLUENZA.—Prof. E. Leyden reports the following cases, with remarks on the pathology of Landry's Paralysis: Patient, female, aged 46, after an attack of influenza, suffered from headache, vomiting, debility, disturbance of vision, pain in extremities, followed by œdema. In the clinic, albuminuria, hemorrhagic retinitis, polyneuritis and heart disease were discovered. The nephritis and temperature were peculiar and characteristic of influenza. Both presented irregular recrudescences, initiated by chill and fever, reached a certain intensity and subsided, resembling a typical infectious nephritis. Patient recovered. L. considers the nephritis and multiple neuritis due to influenza; the œdema a result of the neuritis, or more directly an accompanying myositis; the hemorrhagic neuro-retinitis, also a result of the polyneuritis, and not of the nephritis.

Case 2: Patient, female, aged 27, had influenza in Nov., '91, followed by general debility. Sept., '92, numbness of finger tips; weakness in extremities; loss of appetite; chills and fever, with vomiting. Nov., '92, complete paralysis of extremities, with aphasia; no subjective symptoms; head freely movable; passive motion of extremities executed with ease; pain on pressure in calves; patellar, plantar and achilles reflexes absent; muscle reflexes intact; no atrophy; bladder and rectum paretic; pupils equal and react normally; tongue coated; deglutition normal; patient unable to assume sitting posture. Muscles supplied by branches of right radial nerve do not react to faradic current; all muscles of forearm and hand react promptly to galvanism. In calf muscles, irritability to both currents greatly diminished. Tibial area promptly reacts; peroneal not so well.

Autopsy showed an intense atrophy of the peroneal, a few branches of the right radial and the trunk of the recurrent radial nerves. Microscopical examination of the cord showed enlarged medullary nerve fibers with swollen axis cylinders; the largest being in the lateral columns of the dorsal region, gradually decreasing in number and size towards the medulla,

where they were absent. Deiter's cells were enlarged and swollen, with distinct nuclei, in these regions. The whole appearance was that of a beginning myelitis. The ganglion cells of the anterior horns were large, swollen, round and cloudy, nuclei indistinct, beginning of processes much swollen; many cells contained one or more large vacuoles.

L. distinguishes two forms of Landry's Paralysis: (a) Bulbar; (b) Neuritic. Both cause death by paralysis of the respiratory center; in both the paralysis spreads from a limited area to all extremities, alternately ascending and descending. The difference between these forms explains the normal electrical reaction in some cases and its absence in others, also the absence of tendon reflexes. The alternating ascending and descending paralysis is also made clear. The bulbar form is either a primary affection of the medulla or an ascending myelitic process. The neuritic form is a polyneuritis extending suddenly to the spinal cord, causing a parenchymatous, oedematous, inflammatory process, which ascends to the medulla, causing death. An arrest of such a process would result in recovery, often observed by Landry and others. (*Wien. Med. Blaett.*, No. 50-52, 1893.)

R. W. ROHRDANZ.

ETIOLOGY AND ETIOLOGICAL DIAGNOSIS OF OCULOMOTOR PARALYSIS.—Dalichow (*Zeitschr. f. Klin. Medicin.*, 1890, Bd. XXII) gives a resumé of the causes of this trouble. The third nerve may be paralyzed: I. In hemorrhage, embolism or thrombosis of the brain. In hemorrhage it is usually associated with other paralyses, in softening, the paralysis may be confined to single branches. Paralysis may also occur in thrombosis of the cavernous sinus, but in this case paralysis of the fourth, sixth and ocular branch of the fifth nerve are associated with it. II. A more frequent cause is syphilis. Here the paralysis is usually partial and may arise from any part of its course. The cause of its frequent implication is to be found in its long course along the base of the skull. Syphilitic third nerve paralysis is always a late symptom. Dalichow has observed a case of total unilateral oculomotor paralysis in a syphilitic woman, a very rare condition. III. Tuberculosis causes secondary oculomotor paralysis either by invasion by solitary tubercle or implication in a basal tubercular process. The author here reports a second case of total unilateral paralysis of the nerve. IV. The cause of idiopathic or periodic third nerve paralysis is, as yet, unknown. It may be due simply to pressure caused by hyperemia, cell proliferation or exudation. V. Acute infections may

cause it: 1. Diphtheria, especially in female children, has been known to be followed by this form of paralysis. 2. Rheumatism is said to be a not infrequent cause. 3. Influenza may cause it, especially in the form of paralysis of accommodation and after the decline of the attack. 4. Meningitis. 5. In two cases pneumonia and scarlatina have been assigned as causes. 6. Intoxications; in the first place, alcohol, generally causing a polioencephalitis superior acuta, then nicotine and meat poison (sausage). 7. The occurrence of oculomotor paralysis in tabes and multiple sclerosis is well known. 8. It has been known to occur in diabetes. In this disease the paralysis is not influenced by the general disorder, as it may disappear while the excretion of sugar continues or increases, or persist after mellituria has ceased. 9. It has been known to occur in exophthalmic goitre. 10. Gout has been rarely observed as a cause. 11. Tumors and aneurysms and 12, traumatism may be cited as causes. 13. Congenital oculomotor paralysis has been noticed. (*Neurolog. Centralbl.*, No. 21, 1893.)

G. J. KAUMHEIMER.

RECURRENT PARALYSIS OF THE THIRD PAIR OF NERVES.—Darquier reports a case which was singular in the fact of its onset. The patient, a woman aged 65, had been subject to attacks of periodically recurring migraine accompanied by vomiting and diarrhœa. Two years ago had pains in left frontal region followed after a few days by complete paralysis of the third nerve. Paralysis had begun to pass off after ten days when right third nerve became similarly paralyzed. Complete recovery in three months. Two years afterwards had a similar attack with ptosis, dilatation of the pupil, and divergent strabismus. Slight paresis of one side of face and some deviation on protruding tongue. No other defect of muscular power or sensibility. Attack lasted one month. Complete recovery followed. (*Brit. Med. Journal*, January 6.)

B. M. CAPLES.

SYPHILITIC PERIPHERAL NEURITIS.—Our knowledge of the peripheral nervous lesions in syphilis, especially in the early stages, is not extensive, and the different observations are scattered. Dr. S. Ehrmann states that the early neuritis of syphilis is irritative in its nature, the late forms being gum-mous. He reports four new cases of early neuritis in syphilis, and classifies the importance of the symptoms thus: 1. Tenderness on pressure along the course of the nerve and palpable swelling of the nerve or its surrounding connective

tissue (perineuritis). 2. Disturbance of sensation; paræsthesia, analgesia, or hyperalgesia. 3. Atrophy of the muscles supplied by the affected nerve with corresponding reduction of the muscular power, but no paralysis. 4. Diminished reaction to the galvanic current, with normal reaction to faradism. RD seems to occur more in the late gummous neuritis. 5. The reflexes are normal or increased. He has never seen diminution of the reflexes in syphilis. Concurrent syphilitic affections of the cord cannot be absolutely excluded in the diagnosis. In one of the author's cases the bladder and rectum were involved. In one case, the prick of a needle within the area supplied by the affected nerve was followed by wheals. In the second, mercurial inunctions and injections were followed by an intense desquamative erythema, while the internal use of that metal did not produce any toxic symptoms. He attributes this to vaso-motor instability. (*Wien. Med. Wochenschr.*, No. 33-34, 1893.)

G. J. KAUMHEIMER.

MENINGO-CEREBRAL LESIONS AND TRIFACIAL NEURALGIA.—Dr. W. A. Voisin reports (*Mercredi Med.*, Jan. 20, 1894,) the case of a patient suffering from right trifacial neuralgia which involved all the fibers of the Gasserian ganglion sent to the dura-mater in the region of the middle meningeal artery. The duration and intensity of this neuralgia had resulted in hypochondriacal mental depression. On autopsy there was found meningo-cerebral lesions in the right fronto-parietal lobe and a "pocket" constituted by an abnormal confluent of the cerebro-spinal liquid. The painful point indicated by the patient corresponded so closely to the seat of the lesion that an operation could have been done with fair prospects of success. Such operations have had some success at the hands of Dr. Edmund Andrews of Chicago.

J. G. KIERNAN.

ETIOLOGY OF FACIAL NEURALGIA.—Dr. H. Boennecken has found a number of cases of trigeminal neuralgia affections of the pulp of seemingly normal teeth, or of such teeth in which the caries did not seem to reach the pulp cavity. Hyperæmia of the pulp ("dying pulp" of American dentists) is often a cause. This can be detected by the fact that transillumination by a small incandescent light shows the tooth to be opaque, a normal tooth being translucent. Heat in the shape of hot water or warm instrument will also cause pain,

while cold will relieve it. In other cases calcification of the pulp of intact teeth is the cause of the pain. He relates one case in which he was compelled to successively extract all the teeth. On section the pulp of each tooth was found to contain calcic concretions. The neuralgia disappeared a few weeks afterward and had not returned in eighteen months. (*Berlin. Klin. Wochenschr.*, No. 44, 1893.)

G. J. KAUMHEIMER.

PERIPHERAL FACIAL DIPLEGIA.—Dr. Fred. W. Mott reports a case of bilateral facial paralysis. Up to within a month patient was in good health, when he felt unwell and stayed at home three days and was able to go to work again. Two weeks later had cold, felt ill, called to see a doctor. Patient has noticed that his left cheek was swollen. Was paralyzed on left side of face, two days later was paralyzed on both sides, could not close either eye. The author thinks progress of the case points to its being a case of bilateral Bell's paralysis of a mild nature, one side being affected a few days after the other. Unilateral facial paralysis is very common. Very rarely both sides are affected within a day or two of one another. Was treated with labile galvanism and iodide of potassium with nux vomica. At the end of three weeks paralysis had completely passed off. (*Brit. Med. Journal*, Dec. 2.)

B. M. CAPLES.

BILATERAL FACIAL PARALYSIS.—Dr. Edgeworth reports the case of a girl aged 7, suffering from bilateral peripheral facial paralysis. There were no lines of expression in the face, skin of which was quite smooth. Patient could not frown or raise the eyebrows. Could partially close the eyes by relaxing the levatores palpebrarum. There was no movement of the obiculares oculorum. Lower lids very thin, with upper border more concave than normal and slightly dropping away from the eye-balls. Muscles of ears, nose and cheeks did not move. Lips thick, lower one protuberant; patient could move them slightly. Could blow out a candle, but could not whistle. Could pronounce labials, though not very distinctly; labio-dentals with more difficulty. No response to either the constant or interrupted current was obtained. Patient was very sensitive, so that only weak currents could be employed. The paralysis was complete in the upper part and incomplete in the lower part of the face. The history and absence of evidence of any other cause point to its being due to pressure of forceps at birth. (*British Med. Journal*, Jan. 6.)

B. M. CAPLES.

A CASE OF FACIAL HEMIATROPHY.—Mendel described and demonstrated a comparatively fresh case before the Berlin Medical Society. The patient was a woman of 60, who had experienced a good deal of mental worry somewhat over a year before. This was succeeded by violent and extensive pains over the right side of the face. Six months after this Mendel found yellowish spots of the size of a small coin over the area supplied by the second and third branches of the fifth nerve. At that time there was but little atrophy, but since then it had become especially pronounced in the region of the levator anguli oris and the zygomatic muscles. The tongue was not involved nor was there much atrophy in the muscles supplied by the motor fifth. When first seen there was extensive hemianesthesia of the right side of the face, which had disappeared almost completely. No change in the hair or anomalies of perspiration. M. has recently reported the anatomical examination of a case in which an interstitial proliferating neuritis was found. The same cause is probably at work in this case. (*Berlin. Klin. Wochenschr.*, No. 51, 1893.)

G. J. KAUMHEIMER.

NEUROSES OF THE PNEUMOGASTRIC NERVE.—Von Noorden describes a group of symptoms in hysterical girls and women which he thinks constitutes an undescribed hysterical “syndrome.” The group consists of: (1) Anæsthesia or diminished sensibility in the fauces and part of larynx, sometimes associated with aphonia. (2) Hyperæsthesia of stomach, shown sometimes by pains, sometimes by frequent vomiting after small quantities of food. (3) Bradycardia and irregularity of the heart's action. Bradycardia, he thinks, may sometimes be induced in these patients by suggestion, for the frequency sometimes falls from normal to 60 or less while he is feeling the patient's pulse and speaking of hysterical bradycardia to those around him. The arrhythmia was found in all his cases; and he is sure it does not always depend on suggestion. In some of the cases gastric ulcer could not be excluded, and in several this was certainly present. He says that hysterical people who suffer from gastric disturbance, functional disturbance often shows itself in other regions supplied by the pneumogastric nerve. (*Brit. Med. Journal*, Dec. 23.)

B. M. CAPLES.

PUERPERAL PARALYSIS.—Sottas publishes a very minute account of a case which occurred after the sixth confinement of a woman aged 30. In all previous pregnancies she had been subject to persistent vomiting, and, after the second confinement, suffered from phlegmasia in both legs. The sixth labor was normal. On fourth day slight fever existed. Legs were partially paralyzed. Lumbar pains and a feeling of constriction round the waist. Formication and cutaneous hyperæsthesia and painful spasms of the gastrocnemii when any attempt was made to raise the foot. Complete aphonia set in. Upper extremities soon affected. In a week there was almost general paralysis. Only the muscles of the face, neck and some of the muscles essential to respiration were spared. Some of the muscles recovered after a time, especially in the right arm. Hectic fever and diarrhœa set in and proved fatal. Patient died within thirteen weeks of the beginning of the paralytic symptoms. Author diagnosed the case as polyneuritis. He believes that puerperal infection expended itself on the tissues of the patient's nervous system. She was naturally irritable, her father an intemperate man, was of violent temper, and two of his children, by his first wife, were of deficient intellect. (*Brit. Med. Journal*, Nov. 28.)

B. M. CAPLES.

MOTOR APHASIA WITHOUT HEMIPLEGIA.—Dr. Waldo reports the case of a man 48 years old with total loss of voluntary speech. The onset was quite sudden—two days before seen by author. No loss of power in arms. Knee-jerk on right side slightly in excess of that on left. No affection of sensation. Lower part of face was paralyzed on right side. Could write his own name; quite unable to write anything else. Patient can read, and seems to understand what he reads. No indication of “word-blindness,” “word-deafness” or “mind-blindness.” The author concludes that there was a small hemorrhage from first branch of middle cerebral artery, and breaking down of nerve matter in posterior part of third frontal convolution and adjacent part of ascending frontal, and that the lesion is in the conducting path extending from middle speech region of internal capsule rather than in the center itself. The proximity of the center for the movement of angles of mouth would suggest a likelihood of facial paralysis. (*Brit. Med. Journal*, Jan. 6.)

B. E. CAPLES.

APHASIA IN PNEUMONIA.—Aphasias, Chantemesse points out, (*La Trib. Med.*, Dec. 28, 1893) may occur in all infectious diseases. These are of variable origin. Some are clearly due to material lesions, like meningitis and softening; others, of brief duration and favorable prognosis, can be referred to a biochemical lesion only. In pneumonia, aphasiac symptoms (if they occur) explode about the end of the second or third day. They are ordinarily preceded, at an interval of some hours, by headache, dizziness which may reach syncope, or by fleeting vertiginous attacks, or by throbbing sensations and formication in the right half of the face and right arm; sometimes these latter phenomena are clearly of hemiplegic type. The aphasia may occur suddenly without loss of consciousness or complete obscuration of intelligence. Sometimes its onset occurs after a veritable apoplectiform attack. It presents all the phenomena of ataxic aphasia due to lesion of the left third frontal convolution. The patient cannot pronounce but some monosyllables, more or less relevant. He cannot formulate thought either in speech or writing. The intellect is seemingly dulled, and the patient does not appear to understand what is said to him. After some hours intelligence so far returns that the patient can make himself understood by gestures. With aphasia often occurs neuroses of the vicinity. In every aphasic case Chantemesse has seen right facial paralysis occurred. There may also occur right hemiplegia of greater extent. Usually this is limited to the face, tongue and arm. Ordinarily the sensibility and the reflexes are but little, if at all, affected. There may be added to the motor disorders vaso-motor affections, characterized by redness of the affected members, by more or less localized œdema and often by increased local temperature, detectable by touch as well as the thermometer. These paralytic phenomena do not modify the course of the pneumonia. They do not affect its evolution whether they appear at the onset of the disorder or towards the close of convalescence. They may appear and disappear in a slight pneumonia or in a fatal one. Improvement in the aphasiac phenomena has no bearing on prognosis in pneumonia. The aphasic phenomena are of short duration as a rule. They occur as already stated at the onset, soon reach maximum intensity, and disappear at the end of some days after having persisted about four or five days, or perchance more. Occasionally after twenty-four hours duration the aphasia vanishes. Facial paresis usually disappears with the aphasia. Complete hemiplegia (which is rare) may take some weeks, after the recovery from the aphasia, to disappear.

APHASIA IN CHILDHOOD.—L. Treitel (*Volkmann's Sammlung*, 1893, No. 64,) states that this may be either congenital or acquired. The clinical pictures may be very similar. 1. The cases of congenital aphasia can be considered as "pure" only when idiocy and deafmutism are absent; then only are we justified in speaking of aphasia, or, as Coën calls it, auditory mutism. From the cases recorded and six of his own, T. reaches the conclusion that in the majority of cases a deficient development of memory is present; in others inability to concentrate the attention to the degree necessary for a successful imitation of the sounds heard. The author points out that in these latter cases, too, an abnormal mental development is present, but lays stress on the difficulty of demonstrating light grades of mental weakness without prolonged observation. In his own cases, T. reports mental weakness twice, in the others the relatives report stubbornness, fits of anger, etc., which he attributes to improper training rather than to mental defects. The prognosis is favorable in direct proportion to the normal mental development. In all cases the treatment, which should be mainly directed to the stimulation of attention and the imitative faculties, is a matter requiring extreme patience. 2. The acquired aphasias of childhood are either sequelæ or concomitants of neuroses (stuttering, hysteria, chorea, or reflex epilepsy) to which must be added those cases following the acute infectious diseases. These last, as well as those following epileptic attacks, are generally closely related to the congenital form, as they are mainly due to impairment of memory. The aphasias due to cerebral lesions are prognostically much more favorable than those in the adult, owing to the comparative rapidity with which the right hemisphere assumes the function of its damaged fellow. (*Neurolog. Centralbl.*, No. 16, 1894.)

G. J. KAUMHEIMER.

DYSLEXIA AS A FUNCTIONAL DISTURBANCE.—Berlin first called attention to this peculiar form of word blindness, characterized by the inability to read more than a few words in succession, while careful ophthalmoscopic examination failed to reveal the usual causes of retinal fatigue. Another symptom is the inability to properly combine letters into words. Weissenberg advanced the theory of a letter-combining center located near the speech center and representing an unconscious activity of the latter. Dr. Sommer disputes this theory. He thinks a center should be a part of the brain and not an activity, but if a center is merely a schematic point on paper to represent an activity, then the speech center is also the

letter-combining center. He reports his observations in one case and summarizes as follows: 1. There is a complicated disturbance of reading resulting from (*a*) dyslexia, (*b*) abnormal psychical after effects, (*c*) and paraphrasing due to an uninhibited word association. 2. In the observed case the dyslexia merged into almost complete alexia before complete loss of mental power obliterated the differences between the single psychical symptoms. Dyslexia and alexia differ in degree only. 3. Dyslexia, with the alternation of functional ability and inability, is a type of functional disturbance without coarse anatomical lesions of the brain. 4. In cases of dyslexia, where there is a brain lesion, the disturbance is a remote effect of lesion on parts of the brain, anatomically intact. 5. A localization of a reading center in parts of the cerebrum, which clinical observation in cases of dyslexia prove to be destroyed, is, therefore, untenable. 6. In the observed case, a periodicity in the understanding of words, letters and figures was manifested, each period showing an alternation of functional ability and inability. Theoretically, dyslexia must be regarded as the beginning of one of these periods. (*Archiv. für Psychiatrie*, Vol. XXV, No. 3.)

R. W. ROHRDANZ.

FRIEDREICH'S ATAXIA.—Dr. George Hodge, of London, presented three cases before the Canadian Medical Association. No history of similar or any nervous disease in the ascendants. Patients, two sisters and a brother, aged 41, 37 and 35. In each, disease began at about 31. The chief symptoms, common to all, are: Reeling on standing, even with eyes open; worse with eyes closed; inability to walk across floor without support; while sitting or lying down all ordinary movements of the legs can be performed; little or no wasting; touch, pain, temperature, and muscular sense in leg normal; superficial reflexes normal; no ankle clonus; patellar reflexes markedly increased. Talipes varus and lateral curvature of spine in all cases. No abnormality in upper extremities, excepting that in the youngest, the hands are claw-shaped, with marked wasting of thenar and hypothenar eminences and interossei. Pupils react normally; marked horizontal nystagmus; all organs of sense normal. Little, if any, change of speech; intelligence unaffected. (*Med. Record*, Oct. 14, 1893.)

R. W. ROHRDANZ.

ASTASIA-ABASIA.—Case reported by Dr. Weber (*Med. Record*, Dec. 23, 1893), Russian, aged 35, in United States six months. Addicted to excessive use of alcohol (16 oz. daily) while in Russia. Heredity good; no venereal dyscrasia. Few days before admission to hospital experienced a slight dizzy sensation; became entangled in coils of red-hot wire and sustained burns on forearm and one leg, between knee and ankle. Recovery rapid. Unable to stand when permitted to leave bed, nor walk when supported. Able to make any normal motion in dorsal decubitus. Complete analgesia from toes to body; tactile and thermal senses normal; patellar reflex abolished. Certain groups of muscles in spastic contraction; others relaxed during attempt to stand or walk. Treatment: Strychnine gr. $\frac{1}{30}$ every four hours, absolute rest, no alcohol. Recovery in three months. Dr. Weber regards the pathology in this case of organic character on account of the absence of any neurosis, the exemption of any previous disease, and the abuse of alcohol; and concludes that: (1) The lesion was not unilateral. (2) The posterior columns (Goll and Burdach) were not included in the diseased process. (3) The probability is that the morbid process extended to the central grey matter of the cord, for this only can explain, it seems, the absence of the pain sense without any other sensory impairment. (4) There might have been a disturbance of the large cells of the anterior horns which connect the motor fibers from the brain with those of the anterior roots of the spinal nerves, which did not, however, result in marked trophic changes. (5) The motor tracts probably escaped; for if the destructive process included the direct or crossed pyramidal tracts, it is easily to be seen that the motor impulses would be inhibited.

R. W. ROHRDANZ.

A CASE OF DIPHTHERITIC HEMIPLEGIA.—Julius Donath presented the following case before the Royal Society of Physicians of Buda-Pesth, on account of its infrequent occurrence. J. R., aged 8, had pharyngeal diphtheria, Nov. 2, 1892, lasting fourteen days. On third day of convalescence a complete right-sided hemiplegia with facial paralysis occurred during the night. Complete aphasia for fourteen days. Intellect unimpaired. Facial palsy improved after three weeks; aphasia after four weeks. For two months no further improvement. April 22, Paresis of oral branch of facialis; stammering, indistinct speech; right extremities paretic; upper slightly contracted; body inclined to right; ankle clonus with exaggerated patellar and triceps reflexes. Left side normal.

Touch and pain sense and electrical actions normal. May 27. Paralysis improved by farado-galvanism of extremities and strychnine internally. Speech somewhat indistinct. The hemiplegia of five months standing leaves no doubt as to the diagnosis of cerebral hæmorrhage. The beginning descending degeneration of the pyramidal tracts makes the prognosis in regard to complete recovery unfavorable. (*Wien. Med. Presse*, No. 41, 1893.)

R. W. ROHRDANZ.

HEMIPLEGIC DISLOCATION OF THE SHOULDER IN CEREBRAL INFANTILE PALSY.—Remak presented this rare case before the Berlin Medical Society. The patient, aged 12, had been seized, eight years before, with violent left-sided convulsions and unconsciousness, which lasted a week. Congenital syphilis was admitted by the parents. Since then he has had no convulsions. The left arm was wasted and the muscles spastically contracted. The arm was adducted and rotated inward. Within the last six months a subacromial dislocation of the head of the humerus had developed. Remak explains this by the unequal traction of the various paralyzed and contracted muscles, the triceps, whose long head serves to hold the head of the bone in the fossa, being atrophied through inactivity. Of course, there is an abnormal relaxation of the ligament. By bringing the forearm to the back, the luxation is reduced. (*Berlin. Klin. Wochenschr.*, No. 52, 1893.)

G. J. KAUMHEIMER.

SPONTANEOUS GANGRENE FOLLOWING INJURY OF THE ULNAR NERVE.—Dr. Löbl presented the following case from Prof. v. Schrötter's clinic before the Vienna Medical Club: Girl, aged 11, fell on a pane of glass four months previous, receiving an incised wound of the right forearm. It was dressed without antiseptics; upon removal of dressing four weeks later, deformity, deficient motility of the hand, blisters on hand and little finger, turning into pustules, were noticed. Examination three months later revealed a deep scar on ulnar side of lower third of right fore arm; typical claw-shaped hand with atrophy, especially of interossei. All muscles supplied by ulnar nerve were paretic, excepting adductor pollicis. Sensibility of ulnar nerve area diminished. Nerve not sensitive to pressure. Granulating, dime-sized ulcer with irregular, ragged edges, discharging fetid pus, on the anti-thenar eminence; dark, reddish brown vesicular eruption on knuckles of fifth and fourth fingers; a scar on fourth finger. Löbl regarded

the case as one of spontaneous gangrene of a trophic nature due to section of the nerve. Dr. Singer disputed the diagnosis; he regarded the trophic disturbance of neuro-paralytic origin and due to peripheral lesion, and considered only such cases spontaneous gangrene in which traumatism is excluded or in which its causative effect is unlikely. Such cases were subject to relapse and presented characteristic hysterical symptoms. He believed spontaneous gangrene was analogous to herper zoster gangrenosus hystericus recidivus because it began with a vesicular eruption and herpetic efflorescence; rupture of the vesicle caused loss of tissue, the base becoming gangrenous. Dr. Hock did not regard hysteria as a constant cause nor herpes zoster a proper term, because spontaneous gangrene spreads to different nerve areas and from one-half of the body to the other. He observed six cases and in three there were no nervous or intellectual disturbances. He considered a slight trauma, absent in subsequent relapses, the exciting cause; the origin neuro-pathic, but not always hysteria, as idiocy, feeble-mindedness and severe lesions of the central nervous system and peripheral nerves might cause it. (*Wien. Med. Presse.*, No. 49, 1893.)

R. W. ROHRDANZ.

UNILATERAL ANGIOSPASTIC GANGRENE.—M. Zeller reports a case of spontaneous gangrene involving all the fingers of the right hand up to the middle of the second phalanx. All the symptoms and precursors of Raynaud's disease were present, except the involvement of the other hand, and, as all other etiological factors could be excluded, the case must be classed as one of asymmetrical angiospastic gangrene. (*Berlin. Klin. Wochenschr.*, No. 52, 1893.)

G. J. KAUMHEIMER.

CAISSON DISEASE.—Dr. Andrew Smith has had twenty-one cases of this disease under observation in the Presbyterian Hospital of New York. He reports a typical case and then refers to Francois' and Paul Bert's theory of the pathology, that the cerebral and spinal congestion are due to liberation of air (nitrogen, Bert) from the blood upon reduction of pressure, the bubbles acting as emboli, obstructing the vessels. Jaminet attributes all phenomena to exhaustion from excessive tissue change, brought about by the abnormal absorption of oxygen under increased pressure, while Smith thinks the essential phenomena depend upon the displacement of blood from the vessels exposed to the direct action of pressure (those of the skin) to those, which from their sit-

uation (cranium, spinal canal, shafts of long bones) are protected from such direct action. Vaso-motor function is thus superseded and the muscular coat of vessels are completely thrown out of use. The longer this state continues, the more complete will be the suspension of normal vascular action. The blood circulates in these over-distended vessels because the whole vascular system is subjected to pressure, and, upon removal of the pressure, they cannot readily participate in the changed condition because their muscular structure is paretic, if not paralyzed. The blood currents will pass them by until returning contractility brings them in normal relation with the general vascular system. The slowing of the current, or, perhaps, actual stasis in these over-distended vessels, may give rise to thrombi and emboli. This would explain successive phenomena, as pain in one place followed by paralysis in another. Acting upon these views, Dr. Smith has used ergot to arouse the vaso-motor system, and with good results. (*Med. Record*, Feb. 3, 1894.)

R. W. ROHRDANZ.

REFLEX SPASM OF THE TONGUE.—Gallerani and Pacinotti report the case of a man, aged 26, who complained of frequently recurring pain in the cicatrix of a scalp wound, received twelve years previously by a fragment of pottery. A few days after the injury occurred contracture appeared in the muscles of the left side of the neck, producing extension and sinistral rotation of the head; speech and deglutition became difficult. These symptoms persisted up to the time when examined by the authors. The scar, triradiate in form and very tender, was situated at about 5 cm. above the middle of horizontal line from the left mastoid process to the spine. In its posterior upper limb a round granule, a little larger than a millet seed, could be felt. Pressure on this gave rise to keen pain, radiating to the neck. The speech had the character of alalia or anarthria. Slight trismus, twitchings of the lips, difficulty in swallowing, and partial aphonia were observed, but there was no marked atrophy of the facial or lingual muscles. On attempting to articulate spasms of the tongue occurred. Labio-glosso-pharyngeal reflex spasm was diagnosed, and excision of the scar was determined upon. In carrying out this treatment the nodule in the cicatrix proved to be a small piece of porcelain that was encapsuled and adherent to the neurilemma of a branch of the great occipital nerve. Between the nerve fibers was sclerosed tissue. As a result of the operation the symptoms gradually disappeared. (*Brit. Med. Journal*, Sept. 16, 1893.)

B. M. CAPLES.

A CASE OF GENERAL TIC.—Dr. A. Spitzer presented a boy, aged 15, before the Vienna Medical Club, who, when excited or while attempting to utter difficult words, performs the following spasmodic movements: Wrinkling of the forehead, followed by repeated twitchings of the left side of face and lingual spasm, so that not a single word can be distinctly uttered. Frequently the lightning-like contractions spread to other muscles of the body, the shoulder is raised several times, the trunk is inclined backwards and the patient jumps backwards a few steps. No abnormality of nervous system. Tendon reflexes normal. Epileptiform seizures are said to have occurred during childhood. Dr. Rosenthal regarded the case as one of stuttering, merely. (*Wien. Med. Presse*, No. 47, 1893.)

R. W. ROHRDANZ.

TREMOR SALTATORIUS POST-EPILEPTICUS.—Dr. W. Pascheles reports the following unique case of post-epileptic motor disturbance. Patient, male, aged 61. When 16 years of age, he was subject to attacks of vertigo, sometimes becoming unconscious for a few moments. At 19 he entered the army. A frightful battle scene aggravated his trouble. Convulsions now frequently accompanied the attacks. Since 1870 a tremor, affecting at first the lower extremities and later the upper, followed each severe attack, but disappeared in a short time. Examination, four days after a fit, revealed: Unequal pupils, with unequal contraction to strong light; eye-balls freely movable; no nystagmus; pain on pressure over supra and infra-orbital sinuses; slow and scanning speech; no ataxia; coarse intention tremor increased by movements; patellar reflexes slightly increased; no ankle clonus. In standing there is severe swaying of body; with eyes closed patient falls immediately. Gait is saltatoric, the whole body being thrown into severe jumping or leaping movements with each step. Gradual abatement of tremor during the following two weeks. The course of the epilepsy strongly points to alcoholism as the most important etiological factor, because the tremor appeared late and gradually increased *pari passu* with the chronic alcoholic intoxication to which patient was subject after his military service. (*Prag. Med. Wochenschr.*, No. 49, 1893.)

R. W. ROHRDANZ.

SOME PECULIAR FORMS OF SLEEP OR ALLIED CONDITIONS.—Dr. T. Wesley Mills, of Montreal read an interesting paper on this subject before the Canadian Medical Association. He referred to published reports of people going into trances

or long sleeps, which at one time he could not believe. He had watched the hibernating habits of a woodchuck for four years. He had also studied three or four authentic cases that had occurred in Canada, the subjects of most of them being weak-minded, with often hereditary symptoms of insanity. Some of the individuals slept for months or years, some of the circumstances being similar to the case of the woodchuck—the taking of food and the attending to calls of nature at regular intervals, in one case, 30 days, during the term of sleep or hibernation, six months every year for thirty years. In the case of an old woman, who died at the age of 70, one-third of her life was spent in a stupor. She asked for a drink of water shortly before death, which was the second time she had broken silence for thirteen years. As death approached she recovered partial consciousness, and manifested affection to one of the nurses, and spoke more frequently. (*Med. Record*, Oct. 14, 1893.)

R. W. ROHRDANZ.

HABITUAL HEADACHE AS THE PREDOMINANT SYMPTOM OF NASAL DISEASE.—Dr. J. Scheinmann offers in connection with the history of a number of cases, the following conclusions: (1) The occurrence of habitual headache is often explained by the presence of serious nasal disease. (2) Even in severe and dangerous cases it is often the only prominent symptom for a long time. (3) These facts put the physician under the obligation to explore the nose and its accessory cavities in habitual headache of unknown origin. (4) The presence of a neurasthenic condition does not preclude the existence of a local cause for habitual headache. (5) The discovery of a nasal origin renders, in most cases, the prognosis favorable. Nasal treatment is followed by good and permanent results. (*Berlin. Klin. Wochenschr.*, Nos. 49–51, 1893.)

G. J. KAUMHEIMER.

ASTHMA NERVOSUM.—Einthoven writes concerning the cause and symptoms of this disease. Three principal theories as to this condition have been advanced. (1) Disturbances of the lesser circulation causing mechanical difficulties in the movements of respiration. (2) Spasm of the diaphragm and other inspiratory muscles. (3) Spasm of the bronchial muscles. Of these the author accepts the last. The characteristic paroxysms of asthma he ascribes to the spasms of the bronchi impeding the respiration. This produces an

excess of CO₂ in the blood, which causes abnormal stimulation of the vagi. This action and reaction are further influenced: (1) By the reciprocal effects of an accumulation of CO₂ in the central nervous system and a retardation of the circulation. (2) By the rapid production of CO₂ in the organism in consequence of the powerful efforts required by the movements of respiration. As therapeutic agents he recommends nicotine and atropine. The latter especially can be brought quickly into circulation by subcutaneous injections of very small doses. (*Brit. Med. Journal*, Nov. 4.)

B. M. CAPLES.

ETIOLOGY OF CHOREA.—Dana reports a case which, he believes, supports the theory that the specific agent producing chorea is a microbe. Patient had acute rheumatism at 10 years of age, and chorea at 14, with repeated attacks every two or three years. Was 34 when seen by author, and had been suffering from an attack of chorea for eight months. General violent choreic movements affected the face, tongue and neck, especially; also the arms, trunk and legs. Tonic spasms of the head and neck; rythmical movements of the head and arms, at times. No paralysis, no anæsthesia and no endocarditis. Mental development good. Movements ceased during sleep. Patient died of exhaustion. Post mortem showed meningitis of the convexity, characterized by active connective tissue proliferation and presence of diplococci in membranes and cortex. Evidence of degenerative change (hyaline bodies) in the cortex extending in diminishing intensity to the deeper parts of the brain, capsule and lenticular nucleus; also meningitis, with active vascular changes in upper part of cord, affecting particularly the nerve roots. About the sixth and seventh cranial nerves there was large meningeal thickening with marked periarteritis. One root of the vagus contained some degenerated fibers. Periarteritis was marked in the neighborhood of the anterior pyramid. (*Brit. Med. Journal*, Jan. 6.)

B. M. CAPLES.

ACUTE ATROPHY OF THE SHOULDER MUSCLES FOLLOWING TRAUMA OF THE SKULL.—Dr. Victor Idzinski reports the case of a man, aged 24, who noticed a gradual loss of power and wasting of all the muscles of the left shoulder, excepting those that elevate it, after a wound of the skull inflicted by a blow. All other muscles normal. No disturbance of sensation and no other pathological symptoms. After excluding

all possible ordinary causes of this localized atrophy, the writer associates it with the trauma for two reasons: (1) The blow was received in the region of the right sulcus centralis of the motor area. (2) The atrophy developed in the corresponding muscles of the opposite side. The pathological change in the motor centers, I. thinks, could not have been due to hemorrhage on account of the late appearance of paresis; nor to pressure as a result of a possible fracture, because no symptoms of cerebral irritation, as muscular twitchings, were experienced; local inflammation must also be excluded, hence degeneration or a molecular change of cerebral tissue must be assumed. (*Wien. Med. Presse*, No. 52, 1893.)

R. W. ROHRDANZ.

THE KNEE-JERK IN DIABETES MELLITUS.—Different observers have found the knee-jerk absent in cases of diabetes in widely different proportions. Thus, Bouchard states that it is absent in 36.9 %; Auerbach, in 35 to 40 %; Maschka, in 30.6 %; Eichhorst, in 20.9 %; Marie and Guinon, in 37.5 %; Nevière, in 40 %; and Williamson, in 50 %. While Rosenstein does not attach any prognostic importance to the absence of this reflex in diabetes, Bouchard, and after him, Nevière, Marie, Guinon and Williamson, considered it an unfavorable omen. Grube has carefully examined 131 cases of diabetes mellitus for this symptom, each patient being examined at least twice; 113 showed normal and five exaggerated knee-jerk. Nine of these were grave cases. The knee-jerk was found absent in four cases of grave and six cases of light diabetes. Cases of suspected tabes were excluded. This gives a percentage of 7.6. In regard to the prognostic significance, he agrees with Rosenstein. He has seen the knee-jerk persist until a few hours before death in coma and has found it absent in cases which were quite amenable to treatment. (*Neurolog. Centralbl.*, No. 22, 1893.)

G. J. KAUMHEIMER.

ARTHROPATHIC ATROPHY.—Kornilow denies the conclusions reached by Deroche and Hoffa, who claim that the atrophy does not result in dogs in which the nerves of the limb are cut. Kornilow states that these observers did not sever all the roots leading to the nerves of the posterior limb on which the experiments were made. In twelve dogs he excised the four last lumbar and first sacral roots and on the left side, a week or more afterward, injected silver nitrate into the knee.

In six the injection was on the left side only, in the others, on both sides. The resulting atrophy was in the latter series alike on both sides; in the first series, a distinct atrophy resulted in the left limb. Hence, he claims, the atrophy cannot be reflex in character. (*Neurolog. Centralbl.*, No. 21, 1893.)

G. J. KAUMHEIMER.

ON A SYMPTOM FREQUENTLY ASSOCIATED WITH ENURESIS NOCTURNA IN CHILDREN.—Freud has noticed, for a number of years, a condition of hypertonus in the muscles of the lower extremities in 50 % of all children with enuresis nocturna. There seems to be no other disturbance of function. If, while the child is sitting on a table, with the legs extended, the attempt is suddenly made to spread the limbs, a sudden resistance is felt, which strongly reminds one of the rigidity of spastic spinal paralysis or the “lead pipe contracture” of English authors. This resistance, at first strong, soon ceases, and is due to the adductors, which are seen projecting as tense cords. When the limbs are released they frequently snap back. The same hypertonus is demonstrable in the quadriceps and other muscles, but is not in all cases so intense as described here. Freud has attempted to find an explanation of this phenomenon, but can find none of the following satisfactory: (1) It might be due to fright and modesty. Against this might be cited the fact that it does not occur in healthy children. (2) It might be due to rudimentary cases of spastic paraplegia. But the functions of lower extremities were intact and although enuresis and spastic paraplegia may be combined, they are not found together in any such proportion of cases. (3) It has been suggested that the hypertonus is a symptom of a particular variety of enuresis, although Freud has not been able to find other distinguishing symptoms. (4) Careful investigation shows that it is not frequently present in those cases which would lead to the suspicion that the enuresis is an epileptic equivalent. (5) No constant relation exists between the intensity of the two symptoms. The hypertonus may persist long after the bed-wetting has been cured. Freud suggests that some cases of nocturnal enuresis are due to a hyperinnervation of the vesical muscles, similar to that demonstrable in the voluntary muscles. (*Neurolog. Centralbl.*, No. 22, 1893.)

G. J. KAUMHEIMER,

ARTHRITISM AND THE NERVOUS DIATHESIS.—Dr. M. Sakorrhaphos (*Le Prog. Med.*, Oct. 21, 1893), after an analysis of several cases, concludes that arthritism was nothing but a chronic durable deviation of the normal type of nutrition. The entire organism is shaken by this perturbation which at the outset, at least, is not sufficient to destroy life. Little by little the organism habituates itself to this *modus vivendi*. The cells which compose the organism (inclusive of the spermatogenic and ovular cells) alter, and this alteration, remaining for a long period, becomes a habit, a manner of being transmissible by heredity. Arthritism, like all neuroses, is apt to be transmitted.

J. G. KIERNAN

DIAGNOSIS OF TOXIC FROM TRAUMATIC NEUROSES.—Dr. Olive presented to the Nantes Medical Society a patient (*Mercredi Med.*, Jan. 3, 1894) who fell from a scaffolding, but resumed work in a week, having been meanwhile attacked by erysipelas. A month after the accident he presented an immobile face, a hesitating gait and confused speech. The knee-jerk was exaggerated. He resumed his trade, but his hammer fell from his hand when hammering. He could retain his grasp of small objects. There was no lues nor alcoholism. He slept well. He was more taciturn and sensitive. Dr. Hervouet said that no prognostic view could be taken from the facts at hand. It might be the onset of paralysis agitans, but there had been no beat of the skin, a frequent preliminary. It might be the onset of parietic dementia, but there had been no lues, and, in his opinion, this neuro-psychosis was always of luetic origin.

J. G. KIERNAN.

HYSTERIA, ITS ETIOLOGICAL EFFECTS.—Dr. Beard read an article before the section on the Diseases of the Nervous System of the Minnesota State Medical Society with the above title, in which he says hysteria is a condition, not an acquired malady, a diathesis and not a disease. Hysteria no more answers as a definite effect to any definite cause than, with its multiple manifestations, it permits itself to be assigned to any definite seat in the nervous system. It is responsive to no certain predisposing cause, rebellious of all constant relationships of age, race, sex, climate or occupation; finds its best opportunities of expression in the female during those years of reproductive activity and lays a special tax upon her stores of nervous energy; has its best chances of development where conditions of life are unbalanced, where idleness,

luxury and vicious habits undermine the health; seen too often among the working and middle classes to allow us to regard occupation or the lack of it as a certain predisposing cause. He says hysteria is an instability of the nerve tissue, as well as manifesting itself alike in nerve centers and along nerve paths. Instability of these nerve centers means that their constructive metamorphosis is defective, their discharge of nervous energy abnormal and uncontrolled. He thinks hereditary influence cuts a large figure in regard to this unstable quality of the nervous system. (*Northwestern Lancet*, Nov. 1, 1893.)

B. M. CAPLES.

HYSTERIA, ITS PATHOLOGY.—Dr. Sweeney, in an article in the *Northwestern Lancet*, says it is impossible to define hysteria in the light of our present knowledge of its causation. The definition based upon symptomatology explains but little and it is difficult to confine within the limits of a terse and comprehensive verbal expression the bewildering manifestations of the disease. That some unknown condition is produced by the disease in nerve elements is generally believed, but the specific nature of this change the theory does not declare. He thinks the theory of the vasomotor origin of the disease comes nearest to having an organic basis and explains most satisfactorily its more local manifestations. He thinks with our present knowledge of cell changes it is easy to understand why impressions fail to produce effects along the customary and habitual lines and to explain those aberrations of activity which we classify under the name of hysteria.

B. M. CAPLES.

HYSTERICAL CONTRACTURE.—Babinski attempts to establish the points of difference between this form of contracture and that resulting from organic disease. The resistance in organic contracture gives the impression of being endowed with elasticity. Is sometimes attended with tremor more or less marked. Muscular rigidity is relatively slight, even when spastic paralysis is intense. Tendon reflex always exaggerated except in complicated cases. In hysterical contracture the attitude of the limb is quite different. Muscular rigidity generally very pronounced and tendon reflexes not exaggerated. Author considers that a psychical act is necessary both to contract and to relax a muscle, and that hysterical contracture is due to a prolonged muscular contraction consequent on the patient being incapable of exciting the psychical act necessary to relax the muscles. (*Brit. Med. Journal*, Aug. 26.)

B. M. CAPLES.

HYSTERICAL MONOCULAR DIPLOPIA.—Lissauer (*Inaug.-Dissert.*, Berlin, 1893) says that the experiments of Meyer, Helmholtz and Dousmani show this condition is due to deficient or faulty accommodation, and that the arrangement of the fibers of the lens then cause what Helmholtz has denominated “monochromatic aberration.” While the healthy individual soon learns to suppress the diplopia, the hysteric really practices its production, so to speak. It is not certain that cerebral lesions may cause it, although observations made on some cases of delirium tremens and cerebral concussion seem to render this view probable. (*Neurolog. Centralbl.*, No. 21, 1893.)

G. J. KAUMHEIMER.

COLORS PSEUDO-AESTHESIA.—Dr. Dantic (*Revue. Internl. de Biblio Med.*, No. 20, 1893,) states that in anæsthetic hysterics pinching or pricking or touching the skin with a warm metallic body results in the production of colored sensations, the color varying with the kind of cutaneous excitation (pinching, green; pricking, red; heat, yellow). The repetition of experiment produced the same results. Such phenomenon is closely allied to the colored audition described by Barattoux (*Alienist and Neurologist*, 1893). F. S. de Mendoza (REVIEW OF INSANITY AND NERVOUS DISEASE, June 1, 1893) described several types of this kind as pseudo-æsthesia.

J. G. KIERNAN.

HYSTERICAL CASES AND THEIR VISION.—Dr. John K. Mitchell and Dr. G. F. De Schweinitz summarize their elaborate article on this subject as follows:

1. Achromatopsia, or loss of color sense, as described in our previous paper, is not present in the American cases (certainly not as it has been described by Galezowski and other French observers).

2. Reversal in the normal sequence of the colors, so that red is the largest field, is usually present when there is anæsthesia, but that disturbance of the color sense and anæsthesia do not necessarily belong to each other is proven by the fact that we have examined at least two cases of anæsthesia with no alteration of the visual fields, and a third case in which, although there was most marked contraction, reversal was not demonstrated.

3. The green field is, relatively at least, more, and more often, contracted than the others.

4. In the difficult distinction between certain types of neurasthenia and hysteric patients, the presence of disturbance in the color-sense is of diagnostic import. It is less apt to be present in the former than in the latter, and yet its absence is of little meaning, as we have not found it in many typical cases of hysteria and we have found it in others which are properly classified in the neurasthenic category.

5. It is possible that in the rare cases of hysterical one-sided or general hyperæsthesia it will be found that colors are more acutely appreciated than is normal, and that the color fields are correspondingly enlarged, although we can only make this as a suggestion, having received a hint of it in one case, but not having found it in others.

6. The violence of the hysterical manifestations bears no relation to the disturbance of the color-sense, the most marked change being found in patients the least affected nervously, and practically normal visual fields where the general symptoms of hysteria, anæsthesia excepted, are of the highest grade.

7. Some of the following changes, so far as the field of vision is concerned, are likely to be present in cases of hysteria:

(a). Simple contraction of the color fields, with unaffected form fields.

(b). Contraction of both form and color fields, the green field being relatively more contracted than the others.

(c). Partial or complete reversal of the normal sequence in which the colors are appreciated, most commonly that variety in which the red field is the greatest in extent. Under these circumstances the color fields may be normal in extent, sometimes even wider than is normal, or there may be an associated contraction of all the color fields.

(d). Unusual obscurations of portions of the visual field, for example, in the form of a hemianopsia, or greater contraction of the fields on one side than on the other, the greater contraction usually being found on the same side with the anæsthesia.

(*Journal Nerv. and Ment. Dis.*)

THE BLOODY SPUTA OF HYSTERICs.—Dr. Kernig spoke on this subject before the St. Petersburg Society of Physicians. In four cases he had observed the bloody expectoration to continue for months; in one case for over three years. The lungs and air passages were either absolutely sound, or the changes detected had no relation to the duration and intensity

of the bloody expectoration. This is a dark, sero-hemorrhagic fluid, with a grayish sediment. All the author's cases were women in the second and third decade of life, who presented other marks of hysteria. The microscopic examination, the presence of large quantities of pavement epithelium and the results of chemical analysis point to the mouth as the source of the discharge. (*Wien. Med. Wochenschr.*, No. 37, 1893.)

G. J. KAUMHEIMER.

THERAPEUTICS.

TREATMENT OF NERVOUS DISEASE IN SANITARIUMS.—Dr. J. K. King writes of the advantages of treatment in this class of institutions. One advantage is the new environment given the patient, and another, that they are under better hygienic surroundings than at home. The complete system of baths that is found in sanitariums is also of great advantage. The constant attendance of a physician and the careful study that he can devote to the patient in an institution is another advantage mentioned. The doctor justly lays great stress on the importance of people who suffer from nervous diseases drinking large quantities of water. It is a well-known fact that in nervous disorders, especially in neurasthenia, patients care very little for water. He properly insists that they be required to drink it freely. (*Alienist and Neurologist*, Jan. '94.)

THE CARE OF EPILEPTICS.—In an article under this head Peterson shows the necessity of mental and moral development, occupation and proper association in the treatment of epileptics. A large public hospital is very far from meeting their requirements, for medicinal treatment is uncertain and unpromising. What is demanded is an institution on the community or village plan, where medical treatment, such as it is, may be given to every member, and where every sort of education, employment and social privilege commensurate with his needs may be extended to every beneficiary. The colony system only can attain this object. This system is already an accomplished fact. The Bethel Epileptic Colony at Bielefeld, in the province of Westphalia, Germany, was founded by Pastor von Bodelschwingh twenty-five years ago.

He purchased a small farm with one house and opened with four epileptics. From that small beginning there has been a gradual evolution of his idea until now there are over one thousand epileptics, resident in sixty or more houses, scattered irregularly, but picturesquely over a large farm. The employments are numerous and varied. A school provides instruction in all branches for both sexes. The dairy and farm occupy the attention of the greatest number of patients. Among the shops for epileptic workmen are those for cabinet makers, painters, varnishers, printers, bookbinders, blacksmiths and foundrymen, tailors and shoemakers, and among the stores a grocery, pharmacy, book store, and seed store. The houses present great diversity of architecture and position, are well separated, generally enclosed in individual gardens, surrounded by fences, hedges and many trees, and altogether exhibits the home-likeness of a country villags. One cottage is set aside for cases mildly insane, but bad cases of actual insanity are sent to insane asylums. Taking Bielefield as a model, nine other similar epileptic colonies have been established in Germany, one in Zurich, in Switzerland and one in Holland. Most of these are not conducted by the state, but are under the jurisdiction of private or church charities. It has been found in all of these colonies that no harm is done by bringing epileptics into contact with each other. They enjoy caring for each other and being kind and helpful to their fellow sufferers. It has been noted, too, that the number of seizures almost always diminishes upon entering upon the new, hopeful and encouraging life begotten by the busy community. Within the past two years interest has been awakened in other countries in the matter of care of epileptics, notably in England and America. In 1890 Ohio took steps toward the establishment of an institution for epileptics. A tract of one hundred acres was presented to the state by the citizens of Gallipolis. The corner-stone was laid in November, 1891, three of the buildings were completed and made ready for occupancy in 1892, and nine additional cottages are now in course of construction. In California detached buildings are being erected upon the grounds of the California Home for Feeble-minded in Sonoma county. Active measures are being carried out also in Massachusetts, Pennsylvania, Wisconsin and Illinois for the purpose of securing state care and separate provision for epileptics. Next to Ohio, the state of New York has manifested the most interest in her epileptic dependents. A law was passed in the winter of 1890-1 authorizing the State Board of Charities to select a site and prepare plans for an institution on the village or colony plan, the tract of land for the purpose to be four

hundred acres or more. A tract of land suitable for the purpose was found and a bill to purchase the property and establish "The Sonyea Colony" was introduced in the last legislature and passed, but was vetoed by Gov. Flower. The writer sums up the care of epileptics under the colony system as follows: All are to be treated in accordance with the usual regulations as to diet, hydro-therapy and medicinal agencies with the hope that in this way between one and six per cent. of them may be cured and the disorder in a larger per cent. ameliorated. Out-of-door employment in agriculture and kindred pursuits is to be provided in abundance. All manner of trades and occupations are to be carried on in an epileptic community, organized on the village plan. Facilities for education are to be afforded to almost every extent. Amusements and entertainment and the enjoyment of social intercourses are to be privileges from which no epileptic will hereafter be debarred. (*Amer. Journal of Insanity*, Jan., 1894.)

T. H. HAY.

UNTOWARD EFFECTS OF BORAX IN EPILEPSY.—Dr. Féré states (*Le Prog. Med.*, Dec. 10, 1893) that borax, long continued in epilepsy, may produce seborrhœic eczema, especially involving the scalp. The hair falls, but this falling and eczema disappear on discontinuance of the borax.

J. G. KIERNAN

TREATMENT OF EPILEPSY.—Flechsigs gives an account of a new mode of treating epilepsy, lately originated by him, which he found to be more effectual than methods previously used. His plan consists in giving small but increasing doses of opium for about six weeks, then discontinuing the opium and substituting large doses of bromide (about 7.5 grammes daily). After continuing these for two or three months the dose was gradually brought down to 2 grammes daily. The result usually obtained was cessation of fits as soon as the bromide was commenced. Stein has used the method in several cases. In three of these patients the fits stopped shortly after beginning the bromide. Two of the remaining patients had no fits from the time that the bromide was substituted for the opium to the date of this report. Their general health improved and their body weight increased. The last case was a boy, in which the fits were arrested for only a few weeks. Prior to the opium treatment this patient had been intolerant of bromide, but after it he could take 5 grammes daily. Stein thinks favorably of the method and recommends it, especially for children. (*Brit. Med. Journal*, Nov. 11.)

B. M. CAPLES.

THE EFFECTS OF CORRECTING ERRORS OF REFRACTION IN EPILEPTICS.—Dr. Hern says although it would be obviously incorrect to say that because an epileptic had an error of refraction it must be the cause of his epilepsy, yet the eye strain might be the starting point of the epilepsy. The author showed the first case he had met with in which true epileptic seizures ceased on correction of hypermetropia by glasses. In this case the patient had no fit if he used his glasses for reading, but if he neglected this an attack of true epilepsy occurred. He reports three other cases. In the first the attacks were very much decreased in number (two in several months). In another, who had an average of ten fits a day, they stopped entirely on wearing the glasses; often has a fit during the night. Third case, seizures lessened about one-half. (*Brit. Med. Journal*, Sept. 30.)

B. M. CAPLES.

ACTION OF MERCURY AND POTASSIUM IODIDE ON METABOLISM IN SYPHILIS.—Leone has investigated the action of these substances on metabolism and on the blood of syphilitic subjects. His conclusions, based on experience with 252 patients, are as follows: (1) The salts of mercury increase organic combustion and favor metabolism in the syphilitic. Corresponding to the gradual progressive disappearance of the symptoms of the disease there is an improvement in nutrition, evident both in the increased richness of the blood in corpuscles and hæmoglobin, and in an increased weight and muscular strength. Mercury appears to cause a more rapid elimination of the specific products of the disease, but as recurrences often take place, even after a very prolonged mercurial course, it does not appear to destroy the microbe of the disorder. On the other hand, if mercury be used for too prolonged a period, ill effects are manifest in a diminution of the red corpuscles and hæmoglobin. (2) Iodide of potassium has generally an action analogous to that of mercury on nutrition, but while it increases the richness of the blood, body weight, muscular force and blood pressure, it at the same time diminished the amount of urea excreted. Iodide of potassium, therefore retards metabolism, and would appear to retain the mercury in the tissues of those who have already undergone a course of mercury. It also appears, according to Pellizzari, to have a chemical action on the chemical products of tertiary syphilis, neutralizing the toxic material as it is formed. (*Brit. Med. Journal*, Nov. 18.)

B. M. CAPLES.

CACHEXIA STRUMIPRIVA CURED BY THE ADMINISTRATION OF THYROID EXTRACT AND GLAND.—Leichtenstern reports the case of a woman, who was operated upon for goitre in 1881. Within six months the symptoms of operative myxœdema set in and when Leichtenstern saw the patient in the summer of 1892 had assumed a very serious form. The first attempts were made by injections of watery extract, with the result that after nine injections the patient had lost seven pounds in weight and all the symptoms had become less. A transient erythema, which other authors have also noticed, appeared after several injections had been given and gradually developed into a vesicular eczema, which extended over the anterior part of the trunk, from the breast downward. This caused a cessation of treatment, during which all the good results were lost. After the eczema was healed she was given the raw thyroid gland of a sheep, chopped fine, in a sandwich once a week. After two months, however, a relapse of the eczema, with cardiac weakness, again called a halt for the term of two weeks. After this time, treatment was again resumed and was still being carried out at the time the paper was written. Two portraits accompany the paper and certainly demonstrate a great change in the patient's condition. Very full physiological and historical data are given. After this paper was written Kocher reported five cases of operative myxœdema in which great improvement followed the use of thyroid extract. (*Deutsch. Med. Wochenschr.*, Nos. 49-51, 1893.)

G. J KAUMHEIMER.

A CASE OF MYXŒDEMA WITH UNUSUAL FEATURES AND RAPID RECOVERY.—Reported by Dr. R. B. Kimball (*Med. Record*, Dec. 12, 1893). Patient, female, aged 55; in good health until climacteric at 50. During the intervening five years the following condition developed: Alopecia of whole body; skin remarkably thickened; sensibility impaired; no perspiration; large, painful and sensitive red blotches, changing to purple and blue, on extensor surfaces; entire extremities swollen, with no rise of temperature, and not unlike Raynaud's disease, but less intense; no gangrene; eyes seemed half closed because lids were thickened; ears massive; lips thick; tongue double in size; fingers could not be approximated; speech slow and drawling; gradual deterioration of mind, with hypochondriasis; constant dyspepsia and neuralgia; temperature averaged $97\frac{4}{5}$ °F.; pulse 100; urine negative. Thyroids administered in 5 gr. capsules, one to three, daily, after meals. At the end of three weeks patient looked thin, and perspired; in another week, there was perceptible growth

of hair, facial expression changed; end of third week, emaciation wonderful, perspiration profuse. patient weak and nervous. Strychnine, gr. $\frac{1}{60}$, and tr. strophantus 5 drops, t.i.d., two capsules daily. End of fourteen weeks, no trace of myxœdema; hair thick and one inch long; patient cheerful and amiable; complete recovery of mental power.

R. W. ROHRDANZ.

THE TREATMENT OF EXOPHTHALMIC GOITRE, BASED ON FORTY-FIVE CONSECUTIVE CASES. In a paper read before the Pan-American Medical Congress, Dr. A. D. Rockwell gives his experience in the treatment of this affection. He regards the symptoms as the only guide in treatment, the end of which must be to regulate and give tone to nerve force and to equalize circulation. He has not found quinine, strychnine or arsenic very useful and thinks the iodides often do more harm than good. He considers belladonna and iron of value and digitalis of great value in enfeeblement of the myocardium; it is contradicted in sthenic cases with excitability of heart without enfeeblement and veratrum viride should be substituted. Ergot and bromide of zinc with digitalis or strophantus and iron fulfill the indications in the majority of cases. Electricity used by R. yielded the most efficient results, but ordinarily is not used properly or of inadequate strength. Electrodes, preferably of sculptor's clay, should be applied to back of neck (cilio-spinal center) and solar plexus. Has used 60 MA, thus. Combines galvanism with general faradization. Attention to psychical and mental hygiene, and the repression of ordinary and legitimate emotion and passions are essential. Of forty-five cases fourteen fully or approximately recovered; twenty-seven benefitted, while four received no benefit. Dr. Rockwell considers the prognosis better than generally believed. (*Med. Record*, Sept. 30, 1893.)

R. W. ROHRDANZ.

ON THE VALUE OF SUSPENSION IN SPINAL AFFECTIONS.—Bechterew has had excellent results since the introduction of the methods of Sprimon and Bogrow which allow an exact regulation of the amount of traction. He states: "After observation by myself and assistants, I may say that I have seen very favorable results of suspension in tabes, as well as in certain other organic affections of the cord, especially in compression and compression-myelitis; also in old cases of spinal lues and a few cases of transverse myelitis. It even seems to me that the results in the latter troubles deserve

greater attention than those obtained in tabes. In the cases of compression and compression-myelitis suspension produces an extremely favorable effect, so that the condition of the patient is completely changed after a few seances. It often happens that a few days of suspension will produce a greater result than months or even years of other treatment. Of course, the final result depends on the curability of the lesion producing the symptoms. In all cases the influence of suspension is seen in a more or less marked improvement of the gait and the power of the lower extremities, in the removal of paræsthesias, improvement or resumption of the function of bladder and rectum, partial or total relief of local pains and paræsthesias, and, lastly, in a reduction of the reflex irritability of the lower extremities. It is worthy of note that in some cases the improvement obtained lasted many months, although no other remedial measures were employed." A valuable adjuvant to suspension will be found in local derivatives, of which B. prefers the actual cautery along the spine, repeated once or twice a week. His second choice is blister plaster. The suspensions are used every second or third day, or even daily in some cases. B. has also noticed improvement in vision, even if due to partial atrophy of the optic nerve, after the use of suspension. It must be remembered that some cases are made worse by suspension. These are cases in which the disease is manifested by hyperæsthesia of the spine and pain on motion. In such cases, usually accompanied by acute inflammatory conditions, suspension is not only useless, but may be harmful. Sprimon's apparatus consists of a standard, bearing a large wheel at its upper end, over which the suspension-cord runs. To one side of the standard a seat is fixed. The cross-piece attached to the cord carries a chin-strap and two slings for the elbows. The axillary straps he considers not only useless, but deleterious. When the patient is to use the apparatus alone, the elbow slings only are to be used. To the other end of the cord the weights are to be attached. Later, Sprimon has substituted for the wheel a lever, the short arm of which, extending over the patient, bears the proportion to the long arm of 1 to 4. Hence, the weight of one pound exerts a pull on the patient of four pounds. (*Neurolog. Centralbl.*, No. 18, 1893.)

G. J. KAUMHEIMER.

HYSTERIA, ITS PREVENTION AND TREATMENT.—Dr. W. A. Jones, of Minneapolis, writes an article entitled as above in which he says we are all endowed with hysterical tendencies, and it is not surprising that attacks of hysteria are of such

common occurrence. He would first aim to improve the physical and mental development at the earliest possible moment. Attention should first be directed toward securing proper physical development. Nutrition should be carefully watched, not only toward robustness, but for a strong, healthy nervous apparatus which will finally result in a stable nervous system, with cortical cells and paths that will resist the various influences that cause instability. Habit must be directed to normal and healthy channels. Obedience and regularity are of the greatest importance. The power of analysis should be stimulated and encouraged as a basis for character and intellectual training so that the child will by developing personality be able to judge between right and wrong. Self-control and the control of emotions is the pinnacle to be reached and is perhaps the most difficult to accomplish, but persistence and perseverance will overcome all difficulty. When this control is once established the dangers of hysteria are reduced to the minimum. To prevent hysteria, then, we must aim to secure perfect bodily development, mental training and the establishment of certain definite regular habits and hours, and control of emotions, occupation to prevent retrospection, education properly conducted, and a mind trained to analysis. The treatment of hysteria depends upon the tact, ingenuity and personality of the physician and nurse. Hysteria is a disease, an instability of the nerve cells with a depressed will and an exalted emotional nature, a pure psychosis. All physical derangements must be corrected before the treatment proper of hysteria is undertaken. Many of these subjects must be treated as if the nervous system were exhausted or depleted, even if the patient is in apparent good health. After correcting the physical disturbance the moral or mental treatment is most important. In minor forms treatment can be carried on at home, provided the environment is suitable. In major forms it is useless to undertake the management of such cases unless there is complete separation from former surroundings, friends and relatives. Such patients should be placed under very strict regulations. The author suggests rest-cure modified to suit each individual case for one class; for another class physical exercise regularly and persistently followed under the direction of the physician. Besides these, baths, gymnastics, massage, Swedish movements. Electricity in all its forms he thinks valuable from a moral standpoint, as the effect is more psychical than physical. He thinks a proper diet list is indispensable. The author suggests three drugs with which to treat the majority of hysterics—iron, calomel and hyoscine. Special and particular symptoms, he thinks, should be care-

fully investigated, not only to prove the diagnosis and prevent mistakes, but to convince the patient that the symptoms are understood and appreciated. For the hysterical convulsion a hypodermic of hyosine of 1-100 or 1-50 of a grain, to be repeated in two or three hours if necessary, or 1-12 of a grain of apomorphia, a draught of ether or chloroform by mouth, sudden cold applications to the abdomen, a few drops of ice water in the nose or ears. hot irons to the spine are usually sufficient to shorten the attack. Vaso-motor visceral disturbances, mucous discharge from the bowels, are best treated with large doses of strychnia, 1-20 to 1-15 of a grain until the physiological effect is produced. Hysterical paralysis and contractures may be easily and rapidly overcome in the majority of cases by suggestive therapeutics, but there are occasional cases in which much time is necessary to effect a cure. These patients should be subjected to the usual treatment for other forms of paralysis. The main part of the treatment must be by moral suasion or suggestive therapeutics. Complete hypnotization should rarely if ever be employed, as it is often unsatisfactory and may bring ridicule upon the operator. Frank and full explanations, encouragement, confidence and a proper motive will do more than drugs or instruments. (*Northwestern Lancet*, Nov. 1, 1893.)

B. M. CAPLES.

CAUSE AND TREATMENT OF MIGRAINE.—Dr. Gradle defines it as that form of headache which occurs in periodic attacks of variable length between the spells. The nausea often leading to vomiting toward the end of the attack occurs in less than one-half of the patients, and in these, not with every attack. In one case patient was attacked with dizziness and a subjective feeling of chillness and numbness. In many cases the attack begins with flickering and more or less visual disturbance, sometimes in the form of hemianopsia. It is not unlikely that the minor attacks that often precede the history of pronounced epileptic seizures have been mistaken for erratic forms of migraine. The doctor thinks migraine is not characteristic of the neurotic tendency, although often hereditary in families, and more apt to occur in persons of neurotic disposition. The most frequent etiological factor of migraine within his experience has been astigmatism. He estimates that nearly one-half of all instances of migraine are dependent upon astigmatism. Degree of astigmatism most commonly associated with sick-headache is from one to three dioptrics. The author thinks the nausea which often terminates the attack is a symptom of nervous origin and does not

indicate any primary gastric disturbance. In many patients insufficient sleep is the most exciting symptom of migraine. With very few exceptions glasses have always given relief. Whenever migraine cannot be attributed to the eye strain a nasal influence should be searched for. Dietetic management of intestinal catarrh should be the treatment of patients with migraine where the eye and nasal symptoms are eliminated. Of drugs he knows none that will cure migraine except cannabis indica, using the tincture, 360 grains to the pint, prepared with Herring's extract, in 15 to 20 drop doses. Dose must not be given oftener than once in six or eight hours, as it will lead to a very disagreeable effect on the mind. The first dose will often abort an attack of migraine. Whenever hemp influences an individual attack its continued use, twice daily, will usually protect the patient against recurrent attacks, and if persisted in for months will cure many, but not all of these cases. If the individual attack does yield to cannabis indica it can be stopped almost invariably by antipyrin. (*Chicago Med. Recorder*, Feb., 1894.)

MIGAININ. — Dr. Martin Overlach has an extremely enthusiastic article on this new synthetic product. It is a mixture of antipyrin, caffeine and citric acid, in exact proportions, which, however, are not given, although its activity is said to depend on the exact relative quantity of each ingredient, and he states that it contains 9% of caffeine. He declares that he has used it for five years without a failure, even in the severest cases of migraine, of which he has seen a great number. The same infallible action was noted in other cases of cephalalgia. (*Deutsch. Med. Wochenschr.*, No. 47, 1893.)

G. J. KAUMHEIMER.

CURRENT FALLACIES ABOUT NERVOUS PROSTRATION, by Dr. L. Bremer, of St. Louis. — The doctor writes a very able and well classified article in which he suggests the name of "Beard's Disease," stating that no class is exempt from neurasthenia. He has some very decided and well founded views regarding the sexual origin of the disease, refers to the fraudulent operations on the eye, abuse of tonics, the evil of proprietary medicines, the abuse of fresh air and exercise, erroneous notions about will power, mind cure, self-treatment and experimenting, injury done by baths. He states that briefly the treatment of neurasthenia consists in educating the patient to live within his nerve income, which is small. The

man of average strength cannot, with impunity, attempt to perform the muscular feats of an athlete or prize-fighter. Likewise, the neurasthenic cannot do what many of his acquaintances do; he is to forego a great many pleasures, abstain from many pastimes and entertainments, refrain from many articles of food, which to him seem simple, natural and healthy, and yet stand in the way of his recovery. He must, above all, learn his limits. His treatment must be a sort of education, teaching him the difficult art to adapt himself to his surroundings, to re-establish the normal equilibrium, which is lost, between him as an individual and his environments. To mitigate, if not prevent, the collapses, which constitute such a discouraging feature in the course and progress of neurasthenia—discouraging to the patient alike and the family, must be the chief object of the treatment. To achieve this end, the patient must be taught to avoid extremes, especially of emotion and work, mental and physical, in short, a bodily and mental hygiene, adapted to his individuality, must be instituted. No rest-cure, no seaside, gymnastics, cold or warm water, in fact, no particular method, and least of all, drugs, will bring about restoration to health. They may do good to some and do harm to others. In short, there is no special treatment for “Beard’s Disease,” but there are many different plans of treatment for different persons suffering with it. In other words, the *individual*, not the disease is to be treated. How this is to be conducted is to be left to the tact of the physician. There are many roads leading to Rome, and as many leading to recovery from neurasthenia. To show the patient the right road, and convince him that so far he has been traveling on the wrong one, must be the paramount task of his physician.

B. M. CAPLES.

TREATMENT OF MENSTRUAL GASTRALGIA.—Dr. Baratoux (*Jour. de Med. de Paris*, Jan. 14, 1894) states that the gastralgic crises which at first appear only during the menses, occur at lesser intervals and become more or less permanent. Menstrual gastralgia, in his opinion, is oftenest due to a lesion of the cervical canal, which is, he states, the reflexogenic zone par excellence of utero-ovarian apparatus. There will be found ordinarily an endocervicitis, with or without ectropion or external orifice stenosis. In the purely menstrual type the following is useful:

R	Pot. Bromid.....	4 grams.
	Tr. Aconit.....	1 gram.
	Morphine Mur.....	.02 gram.
	Aquæ Destill.....	95 grams.

This is given in coffee-spoonful doses, every hour until the pain ceases.

When the menstrual period is over, treatment should be directed to the real cause of the reflex gastralgia.

J. G. KIERNAN.

TREATMENT OF THOMSEN'S DISEASE.—Dr. Th. Schott, of Bad Nauheim, writes to the *Berlin. Klin. Wochenschr.* (No. 50, 1893): "My observations relate to two cases with pronounced symptoms. They were father and son. The father, 42 years old, has had the symptoms of myotonia congenita for over twenty years; the son, 13 years old, had them only for the last two years. In both the lower extremities were most affected. As all sorts of medication, electricity, residence at the seashore and in the mountains, had been tried without result, the patients came to me to try the Nauheim baths, which are ferruginous brine baths with a large quantity of CO₂. Beginning with baths weak in brine and CO₂, and of indifferent temperature, stronger and warmer baths were used; later, cooler ones, which did not act so well. At the same time, mild resistance gymnastics and light massage were used. The results were surprising. The walk became better, movements easier, the appearance improved and the spirits became gay. The appetite was increased and they were enabled to take long walks. As the improvement seemed to be due to the combination of the different methods rather than to any one of them, and the patients left for home after five weeks' treatment greatly improved, I was in hopes that I had found a method of removing, or at least ameliorating, the troublesome symptoms of this disease. The massage was continued for some weeks at home. When the patients returned, the next summer, I was informed that the improvement had lasted until cold weather set in, when the old state of affairs supervened. A second season, with the same line of treatment, was followed by a similar improvement, which, as the family physician informed me later, lasted for some months, but was at last followed by another relapse." "This short communication would go to show that massage, in combination with gymnastics and warm mineral baths, will produce a temporary improvement in Thomsen's disease, but that a complete cure cannot be obtained by physical means."

G. J. KAUMHEIMER.

PASTEUR'S PREVENTIVE INOCULATION AGAINST HYDROPHOBIA AND ITS RESULTS.—Dr. Otto Taussig (*Prag. Med. Wochenschr.*, No. 45-46, 1893,) gives a history of Pasteur's four years of experimental work, his well known method of preparing the inoculation material and his method of inoculation. The first practical test was made in July, 1885, on a boy, aged 9, who had been severely bitten by an undoubtedly rabid dog. He received ten injections of spinal cord emulsion and remained

well. Since then 12,782 patients have been treated at Pasteur's Institute, with a mortality of 68 or 0.52 %. The mortality has been reduced from 0.94 % in 1886 to 0.22 % in 1892. The deaths occurring during treatment or within fourteen days after the same are not included, because experience has shown that the inoculation is ineffective when the virus has reached the nervous system. Including these cases, the mortality will not exceed 1 %. Prof. Högyes, of Buda-Pesth, has modified Pasteur's method by diluting the virus. The spinal cord is placed in a 0.7% salt solution and dilutions varying from 1 to 100 to 1 to 10,000 are made, the weakest being injected first. This method is based on the opinion, also held by Pasteur, that desiccation does not weaken but reduces the quantity of virus.

R. W. ROHRDANZ.

EXCRETION OF MORPHINE BY THE SALIVARY GLANDS.—Rosenthal, after investigating the manner in which morphine, when administered hypodermatically, leaves the body, reaches the following conclusions: (1) Morphine, even if given in minimal therapeutic doses, is excreted in the saliva in considerable quantities. Its identification is comparatively easy if the administration has continued for several days. (2) The time in which this excretion takes place cannot be determined, by the usual methods, in patients who have received therapeutic doses; the proportion of that excreted in the saliva to the amount administered can only be estimated. (3) Morphine undoubtedly accumulates in the body and is excreted gradually. (4) The positive results of tests for the presence of morphine and its quantitative estimation in the gastric contents allow no absolute or reliable estimate, either of its presence or the quantity present, unless the absence of saliva from the stomach can be confirmed. (5) The author desires to call especial attention to the practical value of the examination of the saliva for the presence of morphine in cases suggesting intoxication by this drug. (*Berlin. Klin. Wochensch.*, No. 49, 1893.)

G. J. KAUMHEIMER.

THE USE OF ACONITE IN THE TREATMENT OF TETANUS.—Dr. L. L. von Wedekind reports a case of severe tetanus in which opium, chloral, and potassium bromide gave little relief. Tr. aconite, m.V., every hour, for three doses, lessened pain and gave great relief. Aconite was continued every three hours, day and night, in conjunction with tr. opii, m.XV., every four hours. The second day, tr. aconite, m.V., was

given hourly for three doses, in addition to the regular doses, and, although it almost prostrated the patient, he said it was "heaven to him." Jaws somewhat relaxed on fifth day. No medication after ninth day. Dr. W. concludes that aconite controls the temperature to some extent; that it assists the action of and consequent relief and benefit obtained by opium, chloral and bromide; that its depressing action is easily overcome, and the assistance it offers in maintaining strength by inducing the action of associates, easing pain, and causing sleep, counterbalance the danger of its administration in large, frequent, and often dangerous doses. (*Med. Record*, Sept. 30, 1893.)

R. W. ROHRDANZ.

THE USES OF CODEINE.—Perininger, with a view to observing to what extent codeine could replace morphine, tested it in a variety of patients. The author did not find it successful as a narcotic, only short periods of sleep having been produced in his patients. When pain was present it only slightly relieved. In cases of tuberculosis its action was analogous to that of morphine, producing the same relief. Similar observations made in patients suffering from bronchitis. Dyspeptic symptoms, sometimes produced by a long use of morphine, were not complained of. Some cases of dyspepsia appeared to be improved by its use. In pertussis its use was followed by excellent results. He concludes by stating that he does not consider codeine to be a substitute for morphine, though in isolated cases it appears to act better. (*Brit. Med. Journal*, Nov. 4.)

B. M. CAPLES.

A LARGE DOSE OF CHLORALAMID.—Dr. H. M. Lackersteen, of Chicago, in a letter to the *Medical News* (Nov. 25, 1893,) relates his experience with a patient who swallowed a mixture containing 140 grains of chloralamid. The next morning the patient was "in a stupor, from which he could be aroused for a moment and answer questions intelligently. His pulse was weak, and twenty-five beats to the minute, but fairly perceptible and perfectly regular. Respiration was slow but rhythmic. The surface of the body, the head, and the hands were warm and comfortable." He was free from pain and his headache was gone. "A teaspoonful of aromatic spirit of ammonia, properly diluted, and repeated in fifteen minutes, soon brought him to consciousness and raised his pulse to sixty." He went to sleep again, awaking of his own accord in the evening. His health has been good ever since, and the enormous dose seems to have helped rather than harmed him.

CHLORALAMID A REMEDY FOR SEA-SICKNESS.—Mal de mer is an ailment, to the treatment of which I directed attention at the recent meeting of the Medical-Climatological Section of your exposition. I there stated that evidence, very complete and very convincing, existed as to the utility of a solution of chloralamid and bromide of potassium, known as chlorobrom, in arresting the retching and in allaying the mental depression which accrues after the stage of active vomiting had passed. Since then evidence has been published in the *Lancet* by ship surgeons which notably proved its prophylactic action, if certain medicinal and dietetic requirements be carried out previous to the passenger going on board ship. These requirements are simple, and need not now be mentioned. The solution is potent, palatable and safe. It is always retained, and I have no hesitation in saying that, at last, we have found a remedy for "The swooning sickness of the dismal sea."—From "An Address on Medical Treatment, Past and Present," delivered at the Post-graduate Medical School and Hospital, Chicago, Sept. 19, 1893, by Dr. M. Charteries, Professor of Therapeutics and Materia Medica, University of Glasgow. (*No. Amer. Practitioner.*)

DUBOISIN SULPHATE.—Rabow (*Therap. Monatsh.*, August, 1893) reports his conclusions after the administration of 400 doses. He has abandoned the drug as an hypnotic, as considerable doses are necessary, and these are neither sure in action or free from the dangers of unpleasant or serious incidental effects. It is, however, extremely useful in all cases of mental excitement in the insane. In these cases it controls the symptoms promptly, but does not influence the course of the disease. Oral administration was preferred to its hypodermic use, although the dosage in drops, with the difference in droppers, does not especially recommend this method. Habituation was noticed after continued use. The remedy is to be preferred to hyoscin, being free from its dangers. (*Neurolog. Centralbl.*, No. 20, 1893.)

G. J. KAUMHEIMER.

ON THE THERAPEUTIC USES OF EXALGINE.—Dr. Savill reports his experience with this drug in the Paddington infirmary. Detailed notes of the cases in which it was used were kept, and he concludes that if care is taken not to administer the drug to patients with febrile temperature or who are constipated, no ill effects are ever likely to be

experienced. He administered it in the following cases with beneficial results: Carcinoma uteri, with severe attacks of abdominal pain of a dull continuous character. Given two grains every two or three hours; relief pain immediate and marked. Neurasthenic cephalalgia, given one grain doses three times a day; relief. Rheumatic arthritis, with severe neuralgic pains in head and face; two grains of exalgine every hour; pain relieved. Another was a case of cardiac valvular disease, with intense paroxysms of pain over the brow; was given one grain three times a day. A case of chronic phthisis, associated with multiple neuritis, with neuralgic manifestations, especially affecting the head and eyes; two grains of the drug every two hours. A case of gouty arthritis, associated with peripheral neuritis, with severe pains in the feet and along the vertebral column; two grains every three hours; the vertebral pain disappeared. Other cases are cited. The author thinks one is justified in anticipating that in this drug there exists a valuable analgesic, especially adapted to relieve pains of the neuralgic type, being prompt and efficacious in its action, and without any of the deleterious after effects observable in some of the other drugs belonging to the same chemical group. (*Lancet*, Nov. 25.)

B. M. CAPLES.

OBSERVATIONS UPON THE ACTION AND VALUE OF HYOSCYAMIN IN NERVOUS AND MENTAL DISEASES.—The subject of a paper read by Dr. Wm. Spratling before the N. Y. County Medical Society. He cited the case of a vigorous young woman who received $\frac{1}{8}$ gr. of sulphate of hyoscyamin every eight hours until several doses had been administered to control her maniacal state. She died in ten days; condition of blood and circulatory system pointed to the poisonous action of the drug as a potent factor in bringing about a fatal issue. Dr. Spratling believed the hypnotic influence of hyoscyamin and hyoscin was due solely to the motor paralysis which they produced. No sleep or mental rest followed their use. He described the effect upon himself of a hypodermic injection of 1-15 gr. of hyoscyamin. Ten minutes after receiving drug there was fullness of head, jolly delirium, motor and sensory paralysis lasting four hours. Later the delirium became painful, then horrible; then a state of double consciousness with delusions and wild fancies set in. At no time did he sleep or lose consciousness. S. thought its action confirmed Dr. Dana's recent experiments which pointed to common centers for motion and sensation. He thought the drug admissible only in chronic diseases of the nervous system. (*Med. Record*, Dec. 16, 1893.)

R. W. ROHRDANZ.

HYPODERMIC INJECTIONS OF PHOSPHATE OF SODA IN DISEASES OF THE NERVOUS SYSTEM.—Tonolli is convinced of the utility of this salt in a number of diseases of a nervous origin. He shows some reason to suppose that in thirteen cases in which injections of varying amounts were made there was improvement following in six cases, cure in five, while two were unaffected. Four cures in cases of neuralgia; one neurasthenia. Improvement took place in a case of tabes dorsalis, in one of spastic rigidity and neurasthenia and in three cases of hysteria. The negative results were in cases of hysteria. With such cases the author admits that it is risky to rely too implicitly on the apparent results, but he promises to control them by further observations. (*Brit. Med. Journal*, Dec. 30.)

B. M. CAPLES.

STRYCHNINE INJECTIONS IN PARALYSIS.—Boltenstern reports the case of a patient who, as the result of alcoholism, was suffering from well marked paralysis of the lower extremities accompanied by loss of power in the upper limbs. When first seen the condition was complicated by severe rheumatoid pains, œdema, enlarged liver, albuminuria, and diminution of urine. After a few weeks of treatment directed to these latter symptoms, the paralysis alone remained and the author resorted to strychnine injections. The nitrate was used in a 1% solution, the dose at first being 1 mg. or $\frac{1}{60}$ of a grain. In addition, the patient was subjected to warm baths, with cold irrigations, and faradisation once in two days. Four weeks of treatment enabled the patient to feed himself and raise himself in bed without aid and with no discomfort. After another month slight attempts at walking could be made, two weeks later patient was able to raise himself and walk without aid or support. Four months after commencement of treatment patient was able to return to his occupation. Injections were made on thirty-two days, and the total quantity of strychnine used was $2\frac{1}{4}$ grs. The author feels confident that the merit of curing this paralysis of two months standing is to be attributed to the strychnine, and he recommends its further application. (*Brit. Med. Journal*, Sept. 16, 1893.)

B. M. CAPLES.

EFFECTS OF TOBACCO ON PHYSICAL DEVELOPMENT.—Dr. Jay W. Seaver, of Yale, reports statistics based upon observations made of a college class of 187 men, during their first and final years. In weight the non-users increased 10.4⁰ 6; in growth

of height 24%; of chest girth 26.7%; of lung capacity 77.5% more than the regular user, and 6.6%, 22% and 49.5%, respectively, more than the occasional user. Prof. Hitchcock, of Amherst College, fully corroborates Dr. Seaver's conclusions in regard to the dwarfing effect of tobacco. The history of the class of '91 shows that the non-smokers increased 24% more in weight; 37% in height; 42% in chest girth and 75% more in lung capacity than the smokers. (*Med. Record*, Oct. 21, 1893.)

R. W. ROHRDANZ.

TRIONAL.—Collatz reports generally favorable results from the use of trional in sixty-six cases. It was mainly used as a simple hypnotic, usually in doses of 1 gm. In states of acute hallucinatory confusion its continued use seemed to be followed by benefit. In 15 cases of epilepsy it was found to have no effect on the frequency or severity of the convulsions, but seemed to shorten the post-paroxysmal delirium. It acted very favorably in the case of a woman with a valvular lesion and epileptic equivalents taking the form of cardiac spasm, followed by frightful hallucinations and violent delirium. This patient took 1 gr. of trional daily for nine weeks, with the result that she became easier and slept well at night. Its action was uncertain in sleepless and turbulent paralytics. The beginning dose is 2 gm.; with continued use 1 gm. will be found sufficient. He relates the case of an epileptic who took 8 gm. with suicidal attempt. Immediately after taking the drug, he had a fit of five minutes duration. On awakening he complained of nausea, and fell into a sound slumber, which lasted over twenty-four hours, with but slight interruption. Pulse, respiration and temperature were normal. When he awoke he had retention of urine. The catheter evacuated normal urine. The next morning the only complaint was of headache and a staggering gait. (*Berlin. Klin. Wochenschr.*, No. 40, 1893.)

G. J. KAUMHEIMER.

SURGERY AND TRAUMATIC NEUROSES.

TAPPING THE LATERAL VENTRICLES.—Dr. Frank, of Chicago, read an article on this topic before the Pan-American Medical Congress. The following are his conclusions:

1. For distension of the ventricles from acute, simple, or tubercular meningitis, tapping the ventricles is a therapeutic measure clearly indicated, and, other things being equal, promises recovery.

2. For effusion of blood into the ventricles, from trauma or disease, the operation makes recovery a possibility.

3. For abscess, involving the ventricles, it is imperatively demanded.

4. In infusion into the ventricles from brain tumors it may offer relief to symptoms.

5. For chronic hydrocephalus, with moderate distention of the ventricles, without enlargement of the head, it may afford relief.

6. For chronic hydrocephalus, with great distention of the ventricles and enlargement of the head, the operation will lead to fatal results.

(*Alienist and Neurologist*, Jan. '94.)

CEREBRAL CONTUSION, WITHOUT SKULL FRACTURE.—Drs. Binaud and Bousquet report (*Jour. de Med. de Bordeaux*, Dec. 31, 1893) the case of a 56-year-old man who, while drunk, fell from a ladder. The effects of the fall were limited to the right parieto-temporal region. The patient died eleven days after the injury. There was an extensive sub-dural extravasation covering the left hemisphere. There was contusion, of the third degree, of the left temporo-sphenoidal lobe; also contusion, of the third degree, of the cap of the left third convolution. The left second and third convolutions had endured a veritable attrition and were in a pulpy state. Coma was present from the time of the fall. There was no fracture of the skull.

J. G. KIERNAN.

SEVERE HEAD INJURY WITH LOSS OF THE MUSCULAR SENSE.—Laycock reports a case of extensive compound fracture of the cranium just behind the right fronto-parietal suture. The patient when submitted to surgical treatment the following day was unconscious and delirious. Presented signs of hemiplegia on left side. The wound was enlarged and ten pieces of bone removed. The opening measured three by four inches. Base of skull was found fractured just behind orbits, there being a fissure about a quarter of an inch in width. The skull was practically split in two in the line of the bone. Frontal bone could be easily moved. Much lacerated and contused brain substance removed. Edges of dura mater

brought together as far as possible and wound closed. Patient recovered consciousness the fifth day after operation. Ten weeks after accident was able to get up. The author made a careful study of the results of the injury. The following parts of the cerebrum appear to have been involved in the injury: Lower half of ascending frontal convolution, greater part of sigmoid flexure, the posterior third of the lower and middle frontal convolutions and the base of the posterior end of upper one, also base of corresponding part of falciform lobe. The nerve fibers radiating from anterior half of internal capsule were involved, thus affecting the motor center of the arm principally. Those for the leg, trunk and face were affected to a less degree. As both sensory and motor disturbances were a result of one and the same injury, the author concludes that the Rolandic area, which was the part destroyed, is sensori-motor. This case indicates that the sense of tactile localization follows a different nervous tract from that of common sensation. (*Brit. Med. Journal*, Nov. 4, 1893.)

B. M. CAPLES.

DISPLACEMENT OF THE ULNAR NERVE.—Plicque records the case of a stoker who, in falling back on his engine, struck the inner side of his left elbow against the edge of a poker. The contusion was not severe, but evoked numbness of the whole hand, with swelling and a violet color, which persisted for several hours. He had to give up work the next evening, and came under observation two days after the accident, when there was very slight extravasation of the blood, with the slightest possible excoriation, and all the bony prominences preserved their normal positions. Movements in extension were incomplete and particularly painful. Patient called Plicque's attention to a very tender nerve on the antero-internal part of the arm, which could be felt as a round cord which rolled under the finger. Pressure on it caused numbness of the little finger, and there appeared to be no doubt that it was the ulnar nerve, which had become displaced. Nothing similar existed on the right side, where, however, the ulnar nerve seemed to be a little more mobile than normal. Reduction of the nerve was affected with the forearm in semi-extension, but flexion always produced the displacement. The arm was accordingly fixed nearly in complete extension in an apparatus, and massage was carried out. After eight days the nerve seemed fixed; the man was able to do light work on the eleventh day, and to resume his duties as a stoker on the eighteenth day. The nerve was still in position two months later. (*Brit. Med. Journal*, Oct. 28.)

B. M. CAPLES.

DIVISION OF THE RADIAL NERVE BY THE SHARP EDGE OF A FRAGMENT IN FRACTURE OF THE HUMERUS.—Dr. Finotti reports a case of this injury from Nicoladoni's clinic. The patient, aged 5 years, had broken his arm six weeks before entering the clinic, and the attending physician had at once put the limb into a plaster dressing. When this was taken off, a paresis and atrophy of the forearm were noticed. As the child had never complained of neuralgic pain, a complete division of the nerve was considered more likely than its implication in the abundant callus. Incision showed that the fragments had healed at a slight angle and that the nerve was divided at the level of the sharp projecting edge of the upper fragment. The ends were united by suture. The child left the clinic when the wound was healed, and was not seen for two years. At that time motion was perfect. (*Wien. Med. Wochenschr.*, No. 51, 1893.)

G. J. KAUMHEIMER.

ON THE PROGNOSIS OF "RAILWAY SPINE."—Dr. Dercum says the question invariably asked of the expert in suits for damages in cases of railway injury is, "Will the patient recover, and if so, how long, in your judgment, will it be before the recovery takes place?" He knows of no question more difficult to answer, and says his experience does not accord with those who claim that the symptoms in a given case disappear with the award of damages. Buoyancy and exultation sometimes follow a successful issue of the trial. Symptoms of mental depression disappear for a time at least, but after the excitement has passed away the ordinary symptoms of the case persist. In the way of treatment, by rest, tonics, freedom from care, prolonged rest-cure, recovery might be assured. The following is his method of diagnosis pursued in cases of this kind: Patient standing, or if too weak, seated, trunk exposed, back turned toward physician; note position in which back is held; differences in level of two shoulders; presence or absence of muscular tremor. These tests are followed: (1) By palpation. The hand being placed lightly on the back; patient may or may not shrink. This may indicate either the presence of the genuine hyperæsthesia or of a disposition to simulation. If hyperæsthesia be present, will probably find hysteriod symptoms. (2) By pressure; divided into superficial and deep. Superficial pressure as follows: Pass finger tips gently down over the spinal column, being careful to exert but a slight degree of pressure. This test elicits in certain cases a flinching or other reaction as though pain were experienced, especially when pressure is made over an area in the lower cervical, mid-dorsal, the

dorso-lumbar juncture, lumbar region or end of coccyx. This symptom is commonly found in neurasthenia, especially in that form known as spinal irritation, also in hysteria, when the latter affection complicates neurasthenia. The next test is deep pressure. He passes the palmar aspect of the thumb with some degree of force upon various regions of the spine, also over adjacent muscles, and various other portions of the back. If deep soreness be present, patient is apt to react less suddenly than he does if simply a tender spot is touched by superficial pressure. Soreness elicited by deep pressure is more diffuse, and instead of being found directly over the spine of the vertebra is apt to be found diffused for some little distance over one or both sides. (3) Test by percussion. This is performed by striking with a small rubber hammer, patient lying upon face. Rapid, though not hard blows over the spine of the vertebra. (4) Test by motion. This consists of two portions: First, test by voluntary motion. Second, test by passive motion. Patient is first directed to bend forward, back being toward observer. Manner in which act is performed, amount of motion, the stage in the act in which patient complains of pain, the area to which this pain is referred, the occurrence of muscular spasm, or rigidity, noted. Next, patient is requested to reflex the trunk, to right or left, character of motion and action of muscle is observed. If no symptoms be elicited, or if they be of a doubtful character, operator may forcibly flex the trunk to right or left, patient not being warned beforehand of what operator is about to do. The following test the author regards as very important in certain cases: This is by forcible rotation. An assistant kneeling before patient, firmly grasps the hips while operator seizing the shoulders should gently, but firmly, rotate upper half of trunk. If there be deep seated soreness patient will at once give signs of suffering. (5) Test by transmitted shock: Patient standing as erect as possible, operator places both hands with fingers interlocked upon head of patient and then by sudden downward pull send an impulse through the spine. Another method is to direct patient to raise himself upon the toes and then to let himself fall back heavily upon the heels. Author says that in his own experience lesions of the spinal contents in railway spine are rare. In answer to the question, "Will the claimant recover, and if so, how long will it be before he recovers," the author says that under the most favorable conditions, such as treatment in special hospitals, that is, by prolonged rest-cure, the patient will markedly improve in about six months, but that complete recovery, if it take place at all, will not ensue for several years. (*Alienist and Neurologist*, Oct, 1893.)

A CONSIDERATION OF THE TRAUMATIC NEUROSIS, SO-CALLED.

—Dr. Moyer says there is, perhaps, no more obscure chapter in pathology than that relating to the traumatic neurosis. There stands out the significant fact that many organic and functional disturbances of the nervous system have their origin in traumatisms that are many times relatively insignificant. He states that in his experience he has seen as pure types of concussion cases occurring after falls down stairs, or off a step-ladder, as he has ever seen presented in a railroad case. No doubt but that most any disturbance of the functions of the cord may be set up by a traumatism. May have lateral sclerosis, tabes, transverse myelitis or meningitis, but these diseases do not lose their identity when caused by traumatism. They naturally divide themselves into injuries to the peripheral nerves and functional and organic diseases of the spinal cord, brain and sympathetic and mixed cases. As a rule, if no changes are apparent in the muscles of a part six months after an injury, damage to the peripheral nerve can be excluded. He divides traumatisms of the spine into three groups; those of a functional character, “spinal neurasthenia,” characterized by a fixedness of the spinal segment, pain on pressure, and on motion a subjective sense of spinal weakness in the extremities. It is this form of spinal disturbance to which the term “spinal concussion” has been so frequently and so misleadingly applied. It may or may not be associated with some of the organic lesions of the cord which compose the second group of spinal injuries and which include all of the systematic and unsystematic organic lesions to which the cord is liable. The other group includes injuries, such as strains of ligaments and muscles as well as fractures of the bones composing the spinal column and which may be found by the varying symptoms of spondylitis. The author claims that it is possible to make a thorough analysis of each case within one year of the receipt of the injury and that a prognosis can be formulated that shall be approximately correct, a thing that is impossible under the symptom grouping of Erichsen’s disease or spinal concussion. (*Alienist and Neurologist*, Oct., 1893.)

B. M. CAPLES.

PSYCHOLOGICAL.

PATHOLOGY AND SYMPTOMATOLOGY.

ALTERATIONS OF THE RESPIRATION IN PSYCHOPATHICS.—The following are the conclusions of a memoir by Cesare Rossi in the *Revista Sperimentale di Freniatria*, XIX. fasc. I. & II., Oct., 1893:

1. In mental diseases, independent of any other factor, and solely through the altered function of the psychic sphere, very varied alterations of the respiratory movements occur.

2. These alterations are not to be referred to any one nosological form, nor to any criterion of classification that is not symptomatic, that is to say, not referable to the two fundamental symptoms of exaltation or depression, and are summed up in a hyper- and hypo-activity of the respiratory function, according as one or the other of the symptoms prevails.

3. In the depressive form, when, with the diminished psychic activity there are associated serious disturbances in the sensory sphere, the respiratory trace presents particular characters that may be referred to the feeling of anxiety, and that in the typical form of anxious lypemania, may attain a very high degree of severity.

4. With the easy amotivity that so often accompanies depressive psychic conditions there is seen a true emotional tremor of the respiratory muscles, quite distinguishable by its characters from other tremors.

5. In paralytics, beside the alterations that stand in relation with the altered psychic functionality, the respiratory trace offers special features; perhaps in every case at the beginning of the disorder, a characteristic tremor, in regard to the diagnostic value of which it is not prudent at present to offer an opinion.

CRANIAL ABNORMALITIES IN PROSTITUTES.—G. Bergonzoli (*Arch. de Psichiatria, Scienze Penali ed Antropologia Criminale*, XIV, 1893, fasc. IV-V) finds the following degenerative abnormalities in the crania of twenty-six prostitutes:

Wormian bones.....	in 5 crania.....	20%
Platycephaly.....	in 4 crania.....	16%
Plagiocephaly.....	in 5 crania.....	20%
Trochocephaly	in 1 cranium.....	4%
Stenocrotafia	in 2 crania.....	8%
Acrocephaly.....	in 3 crania.....	12%
Pharyngeal tubercle.....	in 3 crania.....	12%
Facial asymmetry.....	in 2 crania.....	8%
Appendix lemurini.....	in 9 crania.....	36%
Alveolar prognathism.....	in 6 crania.....	24%
Premature disappearance of sutures.....	in 3 crania.....	12%

In ten of the crania there existed simultaneously three of these anomalies (20 %); in nine, two existed (36 %); in ten, one alone was observed (40 %), and in one there were no anomalies.

H. M. BANNISTER.

FATIGUE OF THE VISUAL FIELD IN DEGENERATIS.—Ottolenghi (*Archivia di Psichiatria, Scienze Penali, etc.*, XIV, fasc. VI,) has studied the phenomena of visual fatigue in a large number of moral, criminal, epileptic, insane, etc., individuals and finds from his observations that it was always lacking in certain criminals, insane epileptics, etc., while it was frequent in neuropathic individuals. It is a symptom essentially peripheral and exists independently of the condition of the higher centers. It is, he holds, not a brain but a retinal symptom, as Wilbrand, Koenig and Hering hold, in opposition to the views of Pflueger and Schuele. His conclusions are: The rapid fatigue of the retina is very rare in the graver forms of psychic degeneracy (cretinism, epilepsy, moral insanity), and frequent in the lighter forms (neurasthenia, hysteria, general nervousness). The rarity of this symptom in born criminals (moral insanity) allies these more to epileptics and to those groups of mental alterations by arrest and deviation of development, such as that of the phrenasthenics, at the base of which stands the cretins; and separates the morally insane and the epileptics from the neurastheniacs and hysterical, and the neuropaths in general, with whom they have been erroneously confounded. It demonstrates well, he claims, that the most profound action of the degenerative process in the graver forms of degeneracy must not be looked for in the peripheral sensory organs, but has its seat in the psychic sensory centers. He proposes in a future memoir to show how these psychic sensory centers act in regard to fatigue in the degenerates.

H. M. BANNISTER.

THE GENERAL ELECTRIC AND DOLORIFIC SENSIBILITY IN THE SANE AND INSANE.—Roncoroni and Albertotti (*Arch. di Psichiatria, Scienze Penale, etc.*, XIV, IV-V) report the results of examinations of the general and the pain sensibility in twenty-eight sane individuals, of different social grades and culture, and sixty-six insane persons, afflicted with different types of insanity. They used for their experiments the faradiceometer of Cerruti, which measured the faradic current in hundredths of a volt. With this they tested the general and the pain sensibility in various parts of the body and report the following as their conclusions:

1. Both the general sensibility, and that to pain, but especially the general sensibility is much more obtuse in the insane than in the sane; this difference is at its maximum in epileptics and moral lunatics.

2. The general sensibility on the back of the hand averages in normal educated persons 3.52 (hundredths of a volt), and in sane uneducated persons 7.91, while in the insane it averages 11.9 and rises in epileptics to 33.5.

3. The pain sensibility averages in the sane at 46; in the insane, 52.8; in epileptics, 59.2.

4. In the insane, of both sexes, and as regards both sensibilities, the most marked obtuseness, after the epileptics and the moral lunatics, is met with in the melancholiacs, next in monomaniacs and paralytics, and last in the maniacs.

5. The most acute electric sensibility (1.3), and also the acutest pain sense were met with in one normal individual.

6. If we study the results obtained in serial order, we find that acute general sensibility prevails in normal individuals (13 out of 16 males, and 8 out of 12 females); in the insane, and especially in epileptics, the moderate or obtunded is the rule (28 out of 30 insane males, and 31 out of 35 insane females, and all of the epileptics had dull or very moderate general sensibility). The pain sense is often dull in the sane (6 out of 16 men and 2 out of 12 women); but this is rather more the case in the insane (16 out of 30 males, 9 out of 36 females); in male epileptics the obtuseness or lack of this sensibility is almost the rule (5 out of 6 males, 1 out of 4 females).

7. Sensory left-handedness and ambidextrousness are a little more common in the insane (24 left-handed, 24 ambidextrous out of 66) than in the sane (6 and 5 out of 28), and they are still more common in epileptics and moral lunatics (3 and 5 out of 10).

CRIME IN FEMALES.—Roncoroni (*Arch. di Psich., Scienze Penali, etc.*, XIV, fasc. IV-V,) compares the statistics of female delinquents in various European states and colonies and arrives at the following conclusions: Crime in females is from four to twenty-seven times less frequent than in males, and the average is five times less common, especially is this true as regards the graver crimes. Among assassins, females are twelve times less frequent. In some countries (England and Australia) feminine criminality seems to approach that of the male sex, but this is due to the smaller offenses, while in the greater crimes the women are far behind the men. The highest proportion of female as compared to male criminals is found amongst the old, next come the young, and lastly those of middle age. The increase of civilization and education has an unfavorable influence on the number of masculine criminals, but not on that of female criminals. Marriage is less a safeguard against crime for women than for men. The most frequent crimes in women are abortion and infanticide, poisoning, receiving stolen goods, arson, less frequently homicide, robbery, swindling, and, at least in most countries, offences against public order. These results, he says, accord perfectly with those deduced from the study of female criminality in Italy.

H. M. BANNISTER.

TEMPERATURE IN GENERAL PARALYSIS.—Dr. Frederick Peterson has an article in the *Journal of Nervous and Mental Disease* of November, 1893, entitled, "A Study of the Temperature in Twenty-five Cases of General Paralysis of the Insane," in which he arrives at the following conclusions:

1. As regards the average bodily temperature, we find it to correspond to physiological norms. The statements of our predecessors as to hyperpyrexia or subnormal averages cannot be sustained.

2. The diurnal oscillations of temperature in paretics also correspond to physiological norms. The statements to be found in literature as to extraordinary daily variations being frequent in these cases are absolutely erroneous.

3. Asymmetrical axillary differences are so small that they cannot be considered as abnormal, and certainly not of any diagnostic significance.

4. When unusual variations of temperature occur in general paretics, their cause must be sought for in conditions not related to the pathological phenomena of paralytic dementia, but depending upon thermogenic features unrecognized by the physician, or "masked" by the mental state of the patient. Thus, in case two of our series, an interesting

hyperpyrexia was noted during the second week's observations, but the pneumonia causing it was "masked" until the fifth or sixth day, the patient dying on the sixth day. Again in case ten, where the highest single daily oscillation was 3.4° and the average daily oscillation for the week 2.2° , the patient suffered from bed sores which undoubtedly produced some septicæmia. That variations of temperature may take place in connection with the paralytic and convulsive seizures of these cases we do not gainsay, but have made no observations under such circumstances.

RELATION OF SYPHILIS TO GENERAL PARESIS.—In the *Medical Record* of Dec. 9, appears an article by Dr. Frederick Peterson. on "The relation of Syphilis to General Paresis." His conclusions are as follows:

1. A history of syphilis is found in sixty to seventy per cent. of cases of general paralysis of the insane.
2. The fact must not be lost sight of that in thirty to forty per cent. of these cases no history of syphilis, congenital or acquired, is to be found.
3. Antecedent syphilis is seven to ten times more frequent in general paralysis than in any other forms of insanity.
4. Syphilis is, therefore, to be looked upon as a frequent, but not constant factor in its production.
5. But paralytic dementia is not a form of specific disease, not a late syphilitic manifestation, nor is it a form of degeneration depending upon the syphilitic poison for its origin.
6. The relationship of syphilis to general paresis lies in the facts that it is a wide-spread disorder in all communities, that it weakens the constitution and vitiates the blood in many whom it infects, and that the system is thus prepared in many cases for the direct operation of the final etiological factors of general paresis, viz: alcoholism, excessive venery, heredity, and mental overstrain and excitement.

REFLEXES IN PARETIC DEMENTIA.—Renaud (*Jour. de Med. de Paris*, Dec. 10, 1893) has examined the reflexes of 482 paretic dementes (331 males, 151 females); 67 were the first stage, 244 in the second and 171 in the third. The knee, elbow and wrist reflexes were found to be exaggerated in the majority of cases. It was not rare to find exaggeration in one side and abolition on the other. Exaggeration is an early sign of paretic dementia, which tends to give place to abolition as dementia progresses. In paretic dementia the plantar reflex is altered (abolished or exaggerated) in 60 per

cent, of the cases. At the onset such alteration occurs in two-thirds of the cases. The Argyll-Robinson pupil, so frequent at the onset, diminishes progressively; if incomplete it follows in a lesser degree the same evolution. Light and accommodation reflexes are rare at the onset, but occur in one-fourth of the cases at the terminal period. The ocular reflex disorders progress with the increase of dementia. The abolition of the pupillary reflex may indicate the onset of the period of termination.

J. G. KIERNAN

THE RELATION OF THE PATELLAR-TENDON REFLEX TO SOME OF THE OCULAR REFLEXES FOUND IN GENERAL PARALYSIS OF THE INSANE.—Dr. Charles A. Oliver states that:

1. In some of the cases in the second stage of the disease, especially where the patellar-tendon reflexes were unequally exaggerated, there appeared to be an irregular and unequal spastic enervation of the two irides, causing irregularities in pin-point pupil forms.

2. In a few cases, especially in the third stage of the disorder, where the patellar-tendon reflexes were unequally diminished, the pupil-size, though small, and its shape, though somewhat irregular, seemed to be but little acted upon by any powerful mydriatic.

3. In many cases, especially in comparatively young subjects in the third stage of the disease, where the patellar-tendon reflexes were unequally diminished there appeared to be an unequal paralytic innervation of the two irides; the pupillary dilatation manifesting itself at times, though not as a rule, in the eye with the greater amount of objective optic-head degeneration and retinal change.

4. In a few cases, especially in men beyond middle life, in the third stage of the disorder, where the patellar reflexes were markedly diminished and where the ataxias were quite pronounced, there were marked temporary asymmetries of pupillary form, one often being quite small and irregular for several examinations, whilst its fellow was large and ovoid or oval.

5. In quite a number of cases, especially in the advanced stages of the disease (although seen in a number of cases in their earliest stages), where the patellar-tendon reflexes were unequally exaggerated or diminished, there was a failure of the irides to respond to even major degrees of light stimulus; this being true not only for those subjects exhibiting a true spastic myosis but more especially shown in those instances where, with partial dilatation of the pupil, mydriatics failed to act.

6. In many instances, especially in the older cases where the patellar-tendon reflexes were, as a rule, unequally diminished or even lost, there was not only failure of iris-response to the strongest light stimulus carefully thrown upon the retina, but where obtainable the irides seemed to fail to react to the various coarse and rough subjective and objective procedures necessary to be used in order to evolve both separated and associated efforts for accommodation and associated efforts for convergence.

7. In some instances, where ciliary muscle innervation could be satisfactorily obtained, both the spastic excitation and the paralytic enervation at times found by subjective reading tests and objective study with the retinoscope, seemed to be in as direct ratio with the patellar-tendon reflexes as the iridic changes.

8. In quite a number of cases where there was marked inequality of the pupils with more or less want of reaction of the irides to light stimulus the patellar-tendon reflex on the side of the larger pupil seemed to be the one the more greatly diminished.

9. In a number of instances, especially during the very earliest stages of the disease, where the patellar-tendon reflexes were beginning to lessen to unequal degrees, there often appeared momentary secondary ataxic dilatation of the pupil during exposure to strong light stimulation.

10. In many cases, especially during the second stage of the disorder, when the patellar-tendon reflexes began to become irregular and inconstant, pupillary inequalities, as expressive of unequal iris innervation and action, becomes more and more constant.

(*Boston Med. and Surgical Journal.*)

B. M. CAPLES.

PYROMANIA.—Dr. Camuset was called on (*Ann. Medico-Psych.*, Nov.-Dec., 1893) to examine a man with vesanic heredity, who was mentally debilitated, not neuropathic, but of nervous temperament, emotional, proud and contemptuous and who, from infancy, had shown himself to be hypocritical and mischievous. At 16 he began to fire places under the influence of angry periods of very slight origin. He fired without premeditation, always in the evening, and alcoholic excitation had some influence on his incendiarism. Without reference to anything he would become furious, but soon controlled himself and dissimulated his anger. The idea of vengeance permeated his mind and he avenged himself by firing the property of his enemy. Then he called for help,

assisted to put out the fire, and so conducted himself as to disarm suspicion. Dr. Camuset found that the man was partially responsible for his acts, and belonged to the born criminals or moral lunatics.

J. G. KIERNAN.

ACUTE DELIRIOUS MANIA.—Dr. McIntyre, of St. Peter, Minn., says this disease is almost invariably characterized by violent maniacal excitement. The onset is usually so sudden and its downward course so rapid that only the most vigorous and careful treatment will stay its progress or maintain the strength of the patient until the storm has spent its force. He thinks the cause usually some profound psychical shock, although the attack often follows some exhausting physical disease. The disease is accompanied with angry or pleasing motions, during which the patient is constantly active, noisy and exceedingly incoherent. Face flushed, lips tremulous, tongue heavily coated, breath foul. Almost absolute sleeplessness. Delusions based on hallucinations ordinarily present, but invariably of a transient nature. Food sparingly taken. In most cases both food and drink are refused altogether. Temperature from 100° to 103°. The delirium, at first characterized by loud shouting and angry gesticulations, becomes low and muttering. The prognosis is usually bad. Treatment consists in the administration of food, drink and stimulants, with careful nursing. Chloral and bromide to allay the excitement. (*Northwestern Lancet*, Dec. 15.)

B. M. CAPLES.

ETIOLOGY AND PATHOGENESIS OF ACUTE DELIRIUM.—Rasori reports the case of a patient aged 45 who was admitted into the asylum in a state of acute delirious mania. The attack began six days before admission simply with obstinate headache. Inquiry into the personal and family history failed to throw light upon the cause of the disorder. The patient died within eight days, having exhibited, in addition to the ordinary symptoms, opisthotonos, clonic spasm of the facial muscles, and difficulty in swallowing, due, apparently, to spasmodic action of the muscles of deglutition. The necropsy revealed great congestion of the cerebral meninges, on the under surface of which were numerous small blood extravasations, also congestion and œdema of the brain. The cortex was softened in the right temporo-sphenoidal lobe. Tubes of broth and agar were inoculated with fluid obtained from the subdural space and kept in the incubator at 35°C. Both

media gave pure cultures of one and the same organism—a small bacillus with rounded ends, about three times as long as it was broad. This occurred singly and in short chains, It could be stained by the ordinary aniline dyes, also by carbol or alkaline methylene blue, but not by Gram. The organism grew rapidly in all ordinary media alike at the temperature of the body and of the room. The mode of growth was not specially characteristic. Rabbits were inoculated with the pure culture in different situations—beneath the dura mater, the skin and the nasal mucous membrane. When the first named site was selected death ensued in two days; in the other cases, four to six days. In all cases there was a rise of temperature and signs of illness were manifested. Post-mortem examination showed in each instance great congestion of the cerebral meninges with hemorrhages on the inner surface of the pia, also congestion and œdema of the drain. Microscopical preparations and cultures made from the subarachnoid fluid and blood showed the same bacillus as that inoculated, and this was also found in sections of the brain, lying in numbers between the nerve elements. The author proposes to publish in detail the results of the microscopical examination of these specimens. (*Brit. Med. Journal*, Dec. 30.)

B. M. CAPLES.

INSANITY IN OLD AGE.—Dr. Pecharman calls (*Rev. Internl. de Biblio Med.*, Jan. 10, 1894,) attention to the fact that old age does not necessarily imply dementia. There are non-demented cases of insanity, the patients reacting as like adults as their brain permits. Neither paranoia nor intermittent psychoses are observed, since their period of evolution is prolonged. A delusional dementia occurs. It is a psychosis developing on a ground of dementia. Dementia creates, by its progressive destruction of cerebral centers and associations, a disharmony, between ideas and judgments very favorable to the outbreak of erroneous interpretations bearing on the physical state (hypochondriacal ideas), on the surroundings (ideas of persecution), and on the eye (ideas of grandeur and dignity). These ideas are vague, fugitive and without cohesion. To this disharmony must also be referred the criminal acts of old age; its impulses are sudden, unconscious and uncontrollable. This disharmony also furnishes a key to the senile changes of character and the oftentimes great variations in humor; excitation and depression appearing and disappearing without apparent cause. Besides these phenomena, there are seen in intellectually enfeebled old age true psychoses occurring with all their essential phenomena, but

modified by the brain in which they occur. Atheromatous change, the primordial senile lesion, is capable of itself of producing but somatic troubles or mental enfeeblement accompanied by the morbid accident inherent in them. If on them be developed a true psychosis, hereditary defect is to be suspected.

J. G. KIERNAN

MALARIA AND ALCOHOLISM.—Dr. Morandan de Monteyel concludes (*Ann. Medico-Psych.*, Nov.-Dec., 1893,) that in a general way malaria has a fatal power of creating a decided cerebral intolerance of alcohol. It is through intermediary alteration of the blood that this intolerance is produced. In consequence of this intolerance a normal subject, even if moderate in the use of alcohol, is liable at the first onset of malaria to have delirium tremens. The hereditary alcoholic, endowed by hereditary transmission with a special resistance to alcohol, is himself liable at the first onset of acute malaria to lose this resistance and equally to be liable to delirium tremens. The hereditary neuropath, already very impressible by alcohol, not only succumbs more rapidly and easily than the two classes first cited, but is liable to grave cerebral alcoholism, with a precociously consecutive dementia. These effects of acute malaria are even more decided in the relapses, so that a patient who at first, whether from acquired or inherited tolerance, has resisted the alcoholic tendency, is liable soon or late to have an attack of delirium tremens proportioned by this tolerance and the amount of strong liquor imbibed in a previous attack. Cerebral intolerance to alcohol, due to malaria, persists during the intervals between attacks; even when the patient is hereditarily tolerant of alcohol, the lost resistance is not regained until the system is completely rid of the malarial poison. Malaria may cause the exceptional resistance present in the dipsomaniac between his attacks to disappear. Malaria often predisposes hitherto normal and abstinent subjects to alcoholism.

J. G. KIERNAN.

INSANITY FROM THE ABUSE OF INDIAN HEMP.—Dr. Thos. Ireland states that one of the most common vices in Eastern countries has been the excessive use of *cannabis indica*. It is used by religious Hindoo fanatics as an excitement to deeds of sacrifice or violence. The vice is almost entirely confined to the male sex, although females occasionally learn the habit. Dr. Wise states that in the Indian asylums between 30 and 50 per cent. of the admissions were due to the abuse of Indian

hemp alone, and it has been found to be the most frequent cause of insanity in the asylum at Cairo, where about 33 per cent. of the admissions are due to its baneful effects. It is prepared in different forms, "Bhang" being the cheapest and commonest. It is also prepared as a sweetmeat called "Majoom," in the form of a dirty greenish taffy. In Trinidad the effects from smoking cannabis was so flagrant among the coolies that its cultivation and sale have been entirely prohibited. It acts powerfully on the brain and spinal cord. An alkaloid, cannabin, is said to have a paralyzing effect on motor nerve fibers, and also to act on the sympathetic nerve system, sometimes reducing the secretion of the salivary glands and liver and more rarely of the skin. After it has been used for a time a craving like that for opium is established and the victim when unable to obtain it becomes restless, depressed and unfit for any work. The habitual smoker is usually an inveterate liar and at first attempts to conceal the habit to a certain extent. The first symptoms of mental derangement are his becoming idle and careless and neglecting his work. The first unequivocal sign may be either of a maniacal or melancholic character and of a more or less acute type. The maniacal condition is the most common and is generally associated with delusions and hallucinations of sight and hearing. Patient constantly restless, waving his arms, running to and fro, shouting and singing, occasionally makes attempts at violence or homicide; sometimes resists taking food, at other times eats ravenously. This condition may pass off rapidly and the patient recover, but after two or three such attacks he may become stupid or apathetic and rapidly fall into dementia. Occasionally there is a state of chronic melancholia and emaciation, impotency, loss of memory and general weakness of mind. The only naked-eye pathological change yet observed is emphysema of the lungs. He gives a number of illustrative cases. (*Alienist and Neurologist*, Oct., 1893.)

B. M. CAPLES.

HYSTERIA.—Dr. Blocq concludes (*Gaz. des Hôp.*, Nov. 26, 1893,) that hysteria is a mental disorder, a form of disaggregation of the mind, characterized by enfeeblement of the faculty of psychological synthesis with narrowing of the field of consciousness. From this it results that a certain number of perceptions are suppressed from the personality of the subject and tend to the formation of independent secondary personalities which alternate with each other or coexist with the first.

J. G. KIERNAN.

THE DIFFERENTIAL DIAGNOSIS BETWEEN HYSTERIA AND MELANCHOLIA.—Dr. G. C. Barton has an article in the *North-western Lancet* of Nov. 1st entitled as above. He believes that we have a true melancholia which is due to pathological changes in the cell action of the brain; that in hysteria we have quite often a simulation of true melancholia which he designates as hysterio-melancholia. His first point is that we have a hysterical disease of the mind simulating melancholia, but not in any sense melancholia. The differential point in the diagnosis made by the author is the marked depression that accompanies melancholia, while in hysteria there is usually exaltation. He cites three illustrative cases.

B. M. CAPLES.

HYSTERICAL INSANITY.—Moravesik insists on the frequent presence of "neuropathic degeneration" in hysterical individuals. It is this bad foundation of the nervous system which enables the recognized exciting causes of hysteria to produce their effects, which show themselves in early life by eccentricities, night-terrors, etc. It may also show itself externally by abnormalities in the development of the skull, ears, teeth, etc. The commonest form of hysterical insanity is transitory only and resembles the fourth stage of Charcot's hysterio-epilepsy. The more chronic varieties may take the form of melancholia, mania, stupor or paranoia. The author speaks of a form simulating general paralysis of the insane, and of a hysterical condition, in which patients make the most of having insane ideas with a view of attracting attention. (*Brit. Med. Journal*, Dec. 30.)

B. M. CAPLES.

REMARKS ON A CASE OF DOUBLE CONSCIOUSNESS.—Dr. Alfred Iltis publishes a paper under this title. The patient was an epileptic, and the periods of alternating existence were very variable in duration and nature. Even during his normal periods he was erratic and visionary. It is impossible to abstract the history of this very interesting case with any degree of clearness. (*Wien. Med. Wochenschr.*, Nos. 35-36, 1893.)

G. J. KAUMHEIMER.

THE MENTAL STATE OF WOMEN DURING LABOR.—In an interesting feuilleton, the *Wien. Med. Wochenschr.* (No. 42-44, 1893) gives an extensive abstract of an article by Dr. Hans Dörfler, published in *Friedreich's Blätter*. It is a fact, long

known, that the nervous system of the pregnant woman is usually in a state of extremely unstable equilibrium. In the great majority of married women, the care and sympathy of a home and proper attendance serve to restrict the mental alteration within the physiological bounds in all but a few exceptional cases. But when the shame of illegitimate pregnancy, the anxiety of secret parturition, sorrow for lost honor and fear for the future are added, it is easy to conceive such a disturbance of mental equilibrium that the patient is irresponsible. German jurisprudence has, indeed, recognized the distinction, by providing a less severe punishment for the mother who kills her illegitimate child during, or immediately after labor, than for her who commits the crime some time after. The mental derangement occurring during or immediately after labor may be divided into (*a*) states of exhaustion and (*b*) states of excitement. The states of exhaustion are easily produced by prolonged labor, severe pains, dystocia from any cause, or profuse hemorrhage. Syncope may also occur after an otherwise easy labor from arterial spasm or cerebral anaemia, due to an over-filling of the veins of the suddenly emptied abdomen. It is evident that in these states the mother cannot take the proper steps needed to protect the life of the child, and, in secret labors, it often perishes from neglect. There may be partial or complete amnesia following these states. Authenticated cases have been reported in which the mother was in a state of syncope, somnolence or stupor during labor. The states of excitement are of more practical interest, as they are often attended by such psychical alterations as to cast doubts on the legal responsibility of the mother in case of injury to the new-born child, and are much more frequently a cause of such injury. These may be classified as follows: (1) Violent emotions, a pathological exaggeration of a physiological state. (2) Transient furor, which may last up to half an hour, and is usually followed by great prostration. (3) Transitory mania, which may last for hours. (4) Melancholic rapture, which, according to Krafft-Ebing, affects most often neuropathic and anaemic women, exhausted by frequent and severe labors and profuse hemorrhage. (5) Transitory mental derangement having an epileptic or hysterical basis. (6) Eclamptic delirium. Uraemia is probably the most frequent cause of mental derangement in women during and just after labor. (7) Febrile delirium. Complete amnesia may follow all of these states.

INSANITY AFTER REMOVAL OF APPENDAGES.—Rigis reports a case in which the tubes and ovaries were removed in a woman 35 years of age. Two distant relatives were insane; father died of grief from a domestic loss. Patient recovered from local effects of the operation, and all pelvic trouble ceased. A week after the operation patient became violently delirious and had terrifying hallucinations, but no rise of temperature. In a few days the mental symptoms changed. Began to fancy that she had been guilty of horrid slanders against her friends. During the course of the winter her intellect became much blunted. Catamenia and sexual instinct were both entirely suppressed. The author used Brown-Sequard treatment. A cubic centimetre of fluid prepared from a sow's ovary was injected subcutaneously. A steady improvement was at once observed. In a few days patient was able to attend to household duties and pursue her calling as a pianist. She took an interest in family matters. The hallucinations, though much weaker, continued whenever her mind was unemployed. (*Brit. Med. Journal*, Nov. 4.)

B. M. CAPLES.

MIRROR WRITING.—Dr. Chas. K. Mills quotes the case of a boy 13 years old who is reported to have had a sunstroke, followed by cerebral meningitis, when 18 months old. Illness was attended with convulsions and resulted in partial right hemiplegia. Child's father intemperate and dissolute. Boy would be classed with high grade imbeciles. He matches colors perfectly. No contraction of the form-field present. Commenced writing letters on test card backward. Ophthalmoscope shows large central excavations in both nerves and throughout the eye-ground commencing absorption of pigments, probably the result of eye strain. He has hypermetropia 2D, with some astigmatism in both eyes. No eye-ground changes pointing to intracranial lesion. Lowered sharpness of vision partly due to refraction error. When efforts were made to teach the boy to write with his left hand from a copy it was discovered that he always made his attempts at writing from right to left, inverting the words and letters. He copies slowly, but always begins with hesitation to write in mirror fashion. The author quotes Savage, who says that mirror writing is met with in some forms of mental weakness and in conditions of mental disorder allied to the hysterical. Observed more commonly among women. Imbecile children, who are often left-handed, frequently show a tendency to reversion in spelling and in pronouncing words. (*Journal of Nervous and Mental Disease*, Feb. 1894.)

B. M. CAPLES.

DIFFERENTIAL DIAGNOSIS BETWEEN LITIGIOUSNESS IN THE SANE AND INSANE.—Dr. Ludwig Horn, after a careful review of the literature of the subject, arrives at the following conclusions:

1. Anamnesis reveals nothing of importance in sane litigants; in the querulous paranoiacs, a hereditary taint, peculiarities in childhood and after-life.

2. The sane litigant shows no abnormal somatic symptoms; in the paranoiacs, somatic peculiarities are seldom absent.

3. The motives of sane litigious people are pleasure in law-suits, or the desire to obtain a final decision in a particular point of law; in the insane, the motive lies in a hereditary defect—an inability to submit to an unfavorable decision.

4. Characteristics of litigiousness: (1) The sane litigant maps out his course of procedure; the paranoiac believes it impossible to lose his case, and does not plan beforehand. (2) The sane litigant will not go beyond a certain point, decided upon in the beginning; the paranoiac does not limit himself. (3) The sane litigant can end his trial at will; the paranoiac is drawn into new trials by his disease.

(*Wien. Med. Blatt.*, No. 46, 1893.)

R. W. ROHRDANZ.

THERAPEUTICS AND HYPNOTISM.

TREPHINING FOLLOWED BY DRAINAGE OF THE SUBARACHNOID SPACE IN GENERAL PARALYSIS OF THE INSANE.—Dr. Goodall thinks that a study of the cerebral cortex in that disease afforded justification for this procedure, supplemented by drainage of the subarachnoid space, although the operation was held in disfavor by many alienists. He states that in an early stage there was vascular engorgement, nuclear proliferation of the adventitial lymph sheath, and leucocytal extravasion in and about the perivascular channels. Later, distortion of the vessels in their perivascular sheaths by contraction of the vascular processes, of spider cells, and hypertrophy and proliferation of the latter. Contemporaneously the nerve cells showed signs of degeneration. Amongst them were seen the proliferating spiders. The facts pointed to an accumulation of lymph. The author operated upon an early

case of general paralysis presenting few symptoms. After trephining a horsehair drain was inserted into a large sulcus. Owing to the onset of certain symptoms (facial spasm, speech defect, etc.,) the idea of substituting a fine drainage tube for the horsehair was abandoned. The patient's state remained unchanged. In the future Goodall proposes to fix drainage tubes in the opened sulcus from the onset, affording best means of drainage and rendering it possible to judge whether by removal of fluid from the subarachnoid space for a protracted period improvement could be brought about in early general paralysis. (*Brit. Med. Journal*, Aug. 26, 1894.)

B. M. CAPLES.

DUBOISIN IN MENTAL DISEASES.—Mongerì comes to the following conclusions with regard to its use: Duboisin should be used as a sedative in the maximum dose of $1\frac{1}{2}$ millig. It is preferable to the other sedatives on account of its prompt action and the ease of its administration. Should, by preference, be used in the evening, in order to combine the effects of natural sleep with the sedative action of the drug. The author says the drug may be used in all forms of active insanity, especially in furious mania and acute alcoholism. Useless in the asthenic forms and those accompanied with depression. (*Brit. Med. Journal*, Nov. 4.)

B. M. CAPLES.

INJECTIONS OF BROWN-SEQUARD'S FLUID IN MENTAL DISEASE.—Alombert-Goget says that Brown-Sequard's fluid, used in the treatment of mental disease, has seemed, when in sufficient dose, to be of some service in two classes of cases, ataxy and delirious epilepsy. Not only was the general nutrition improved, but the mental condition was favorably modified. Appearance of patient different, eye being brighter, look livelier and more penetrating and the whole countenance more expressive. In epilepsy the attacks were modified in form, their number being slightly increased. In ataxic patients, besides the disappearance of the lightning pains, delirium was subdued and temperature regulated. The injections caused the increase of vitality in every respect. (*Brit. Med. Journal*, Dec. 30.)

B. M. CAPLES.

TREATMENT OF INEBRIETY.—Dr. C. H. Hughes says the first essential is the substitution of some support to the weakened brain less harmful than alcohol, and suggests as remedies opium, strychnia, quinine, valerian, coca, bromide,

etc. He also suggests the liberal drinking of water and milk. Next, is a new environment, thorough rest, with hypnotics when necessary. Further, he advises saline laxatives and cathartics. Sometimes mercury is advisable. Tonics and nutritious food are important aids. (*Alienist and Neurologist*, January, '94.)

THE TREATMENT AND PROPHYLAXIS OF INSANITY.—From some statistical investigations, Dr. John Punton finds that during the past ten years insanity has decreased in Massachusetts, Ohio, Maine, Pennsylvania, Indiana, Kentucky, Missouri, Nebraska. Nebraska has fewer insane in proportion to population than any other state. In the treatment of melancholia the doctor does not advise the use of opium. For the production of sleep he suggests sulphonal, paraldehyde, chloralamide, or chloral, also tonics and nutritious diet. (*Alienist and Neurologist*, January, '94.)

PSYCHIC TREATMENT OF URINARY INCONTINENCE. — Dr. Brillon (*Jour. de Med. de Paris*, Nov. 12, 1893) cites two cases of nocturnal urinary incontinence successfully treated by suggestion in the hypnotic state. One was in a hysteric female and the other in a neuropathic male.

J. G. KIERNAN.

CONTRIBUTIONS TO SUGGESTION-THERAPY.—Dr. D. Weisz reports a number of cases of functional neuroses, one of angina pectoris and one of athetosis, treated by suggestion during hypnotic sleep. The latter two cases were temporarily greatly improved. He justly remarks that suggestion is a symptomatic treatment only, similar in action to the hypodermic of morphine we might give in a case of neuralgia, and like it, often followed by a complete cessation of symptoms. He does not believe that the original disease (hysteria, neurasthenia) can be influenced by this means, nor can it restore the normal balance to a nervous system disturbed by a vicious heredity or acquired instability. Neither can it cause a complete change of character, as some of its enthusiastic advocates claim. He has always confined himself to a single complaint in the hypnotic and post-hypnotic suggestions, and if several seemingly separate maladies require it, attacks them in successive sittings. The remainder of our therapeutic armamentarium must not be lost sight of during the use of hypnotism. One of the main factors to its successful

use is to inspire the patient with confidence in the physician's ability to produce the desired result. He does not believe in the possibility of the suggestion of crime. It makes a vast difference if we try to influence an already acting function of the brain, as in a functional paralysis, or try to force upon it a totally foreign or repugnant idea. As the effect of suggestion in the instance first mentioned is often slight at first, requiring repeated seances, the brain will certainly resist the other much more vigorously. "For the suggested idea is treated by the brain as any spontaneous idea is, it is subject to the same modifications, and may be weakened or obliterated by the constantly arising pictures of the conscious or unconscious psychical life." The influence of the judgment, which distinguishes man from the animal, must not be forgotten. (*Wien. Med. Wochenschr.*, No. 38-40, 1893.)

G. J. KAUMHEIMER.

HYPNOTISM DURING LABOR.—Schrenck-Notzing reports (*Zeitsch. f. Hypnotism.*, II,) a case in which, by request of the patient, delivery occurred during hypnotic sleep. He states that in sufficiently deep hypnotic sleep we can (*a*) remove by suggestion the painful sensations of the labor pains, (*b*) regulate their action, (*c*) suggest their increase or decrease in power and frequency. (*Wien. Med. Wochenschr.*, No. 43, 1893.)

G. J. KAUMHEIMER.

MEDICO-LEGAL AND GENERAL.

JUDICIAL RECOGNITION OF IRRESPONSIBILITY IN ALCOHOLIC MENTAL DISEASE.—Dr. Norman Kerr thinks the time that the plea that a man was mad through drink would meet with a curt reception from a judge is past. Evidence is now freely received on the accused's state as to sobriety, to determine the presence or absence, for example, of malice. Among other advances has been the ruling of Mr. Justice Stephen that though the immediate frenzy of intoxication does not absolve, any secondary disease producing mental unsoundness and resulting therefrom, does. Delirium tremens has been characterized by him as a distinct and formed disease produced by drunkenness and has been held to be a valid plea for unaccountability. He gives a number of cases showing where eminent judges

had held that persons were irresponsible and the accused was acquitted as of unsound mind. He thinks these show that the trend of modern criminal jurisprudence is in the direction of giving fair consideration to the mental state of the accused inebriate persons with a view to ascertaining as to how far they may have been responsible for their acts. Modern medical and physiological scientific investigation is day by day throwing a new and clearer light on many diseased brain conditions antecedent to, concurrent with and consequent on inebriate indulgence of various kinds, gradually revealing that many intemperate criminals were really involuntary offenders. (*Alienist and Neurologist*, Oct., 1893.)

B. M. CAPLES.

INEBRIATES AND THE DEATH PENALTY.—The following is the summary of the article by Dr. T. D. Crothers, of Hartford, read before the Pan-American Medical Congress:

1. The medical treatment of insanity has changed in obedience to a more accurate knowledge of the brain and its diseases.

2. The legal treatment of inebriety is unchanged today. Although it occupies two-thirds of the time of courts, all teachings of science and a larger knowledge of the inebriate and his malady are ignored.

3. The ruinous error of punishment by fines and imprisonment of inebriety and petty crimes associated with it, which notoriously increases and perpetuates the inebriate and criminal, is a fact demonstrable in every community.

4. Thus public opinion, through mediaeval theories and laws, is training and preparing a class of inebriates who first commit petty, then capital crime, with a certainty that can almost be predicted.

5. The death penalty for such crime utterly fails for the same reason. The execution of any number of this class simply opens the door for an army already prepared and trained to take their places.

6. From a scientific study of these cases it is clearly apparent that they are diseased and incapacitated to act sanely. Alcohol has palsied the brain and made them madmen. The very fact of the continuous use of alcohol is evidence of mental impairment and unreasoning act and thought.

7. To hold such men accountable for their acts, and by punishment, expect to deter them from further crime, and by such punishment check others from similar crime, is an error which both scientific teaching and experience point out.

8. The object of the State, through the law, is to protect society and the individual; but if the execution of the law-breaker fails to accomplish this end, the laws are wrong.

9. The unfounded fear that the plea of insanity in crime, and the failure to punish, constitute an encouragement to further crime, is flatly contradicted by statistics.

10. Among the mentally defective, the insane and inebriates, the death penalty is followed by an increase rather than a diminution of crime.

11. The inebriate should never be hung for crime committed under the influence of alcohol.

12. This method of punishment is never deterrent, but furnishes an attraction for other inebriates who commit similar crimes in the same way, following some law of mental contagion.

13. The inebriate murderer should be confined for the rest of his life, in a military work-house hospital. He should be under the care of others, as incapacitated to enjoy liberty and incompetent to direct his thoughts or acts.

14. A change of public sentiment and law is demanded and a re-adjustment of theory and practice called for. The criminal inebriate occupies a very large space among the armies of the defective who threaten society today, and his care and treatment must be based on accurate knowledge, and not on theory.

15. Inebriate murderers should never be placed on public trial, where the details of the crime are made prominent, or the farcical questions of sanity are publicly tested. They should be made the subject of private inquiry, and placed quietly in a work-house hospital, buried away from all knowledge or observation of the world.

16. The contagion of the crime and punishment would thus be avoided, and the inebriate's services might repair some of the losses he causes to society and to the world.

THE FUTURE OF ASYLUM SERVICE.—(*Amer. Journal of Insanity*, Jan., 1894.) In an article under this head A. Campbell Clark, M. D., Medical Superintendent of Glasgow District Asylum, Bothwell, Scotland, says:

We have been waiting and working for years for a change for the better in asylum management and treatment. I refer to asylum service, the machinery of asylum administration. It is not my purpose to deal with the prime levers of this machinery. The machinery which really drives the asylum routine is chiefly located in the lower official strata. The attendant and nursing staff constitute our fundamental

reliance in the work of asylums. Asylum medicine is not dealt out by pills and potions alone, but mind and body act and react on each other. Even the benighted subjects of mental disease have glimmerings of consciousness, and are receptive of impressions and influences from minds stronger and clearer than their own, and from the surroundings which these minds create for them. Asylum wards are all the time the scene of mental conflict. Mental and physical breakdown is not uncommon in our attendants and nurses. They are weak in numbers and strain tells. On the other, hand their influence cannot be fully and accurately estimated. They are the effective machinery of discipline and routine. Discipline and routine are good things where the higher faculties of mind are perverted or suspended, but the application of mind, the focusing of individual cases, the recognition of each personal identity in the asylum wards, constitute the rational basis of medical treatment.

He asks the question, "Is this object attained?" The answer is "No," but we are driving towards it. Attendants do individualize some cases without prompting, but the majority are treated *en masse*. I take it, therefore, that we should overhaul our machinery and see whether our nursing staff cannot generate in greater measure curative magnetism of mind on mind, a keener faculty of observation, and a higher sense of responsibility for the care and cure of the insane.

Physique was the paramount idea in the past. Moral worth, intelligence, education and training are factors of the highest importance to-day, and the personnel of our nursing staff is perceptibly changing for the better. This process of evolution should be carefully scrutinized at the present time, that prolific off-shoots in certain directions should be judiciously pruned, and that we be not too much carried away by appearances.

Where are the defects of the nursing staff and its work? A. The defects of our nursing staff are three-fold: Defects of (a) quantity, (b) quality and (c) organization. B. The defects of nursing work are the natural result of the foregoing, but they are also due to (a) large wards, (b) lack of personal coöperation of superior officers, (c) the same monotonous grind from week to week. The present number of nurses for acute and curable cases is too small, the hours of duty are too long, and they are not officially attached to particular cases. The remedy is, a larger staff, give much larger leave and you can have a larger per centage of nurses on duty.

As regards the question of quality. That we want more style and higher education is a delusion most disastrous for

asylums. Placed in the balance against a bright, sunny temper and obliging disposition mere education would be found wanting. Sunshine in our attendants is dependent upon sunshine in their surroundings. In a word, don't keep them so long in harness at a time, feed them well, groom them well, make them as healthy and happy as the nature of their work will allow.

Organization. In the first place the night supervision and nursing of the insane is woefully insufficient. We cannot have short watches as on board ship, but with increased numerical strength, we can assign for night duty a larger staff with a supervisor or chief. Make night service longer and day service shorter, but break the night service in two parts, with one hour's suspension of duty between. In small asylums it would be the duty of the supervisor to relieve the subordinates in turn. In large asylums a relieving officer would be told off for duty. The leave of the day staff should be much more liberal than at present. The patients should be detailed in small groups for special written observations; each nurse should have a group. Nurses should exchange groups every three months, so that fresh interest is continually kept up, and the patients come under new influences. Change patients from one ward to another oftener than is done at present. Have medical officers and supervisors more in the wards collaborating with the nurses.

The writer recommends the formation of a mental nursing association, and a provident or pension scheme. If linked together under the patronage of asylum boards of management they can only be followed by decided success.

T. H. HAY.

INSTRUCTION IN PSYCHIATRY IN AMERICAN MEDICAL COLLEGES.—Dr. N. Emmons Paine reports his investigation of this subject in an article read before the American Medico-Psychological Association, published in the *American Journal of Insanity*, January, 1894, as follows:

Circulars were sent both to colleges and superintendents of hospitals, in order that every individual interested, so far as possible, might be reached. The total number of colleges addressed was one hundred and forty-four—one hundred and thirty-one in the United States and thirteen in Canada. The answers from all sources realized a total of sixty-one colleges—fifty-three in the United States and eight in Canada. Eighty-three colleges were evidently unable to give satisfactory accounts of themselves, and, therefore, gave none. Of the sixty-one, all, with the exception of one for this year only,

are teaching psychiatry. Of these sixty, twenty-four are taught by persons classed as specialists, two by assistant physicians, and thirty-four, or more than half, by superintendents of hospitals. The important fact to be noted is the increase in the number of superintendent-lecturers. That number has risen from three to thirty-four during the last twenty-two years.

In the matter of clinical teaching the replies show that in forty-two of the sixty-one, clinics were held; in fifteen there are none; and in four no answers are given; showing the proportion to be sixty-seven per cent. in its favor.

In answer to the question of place of holding the clinics in the forty-two college, in twenty they are held in hospitals for the insane; in twelve, both in a college and a hospital; in three, in hospitals of unknown character; and in seven, in the college only. Of the sixty-one colleges it appears that in thirty the students are examined by the lecturer; in five, by someone not the lecturer; six are unknown; in twenty, they appear to be subject to no examination.

A list of the colleges and the information obtained is presented in detail in an appendix.

T. H. HAY.

ASYLUM AND HOSPITAL REPORTS.

PHILADELPHIA HOSPITAL REPORTS, *Vol. II, 1893.* Edited by Charles K. Mills, M. D., Member of the Neurological Staff, and James W. Walk, A. M., M. D., one of the Directors of Charities and Correction. Philadelphia. Printed by J. B. Lippincott Company, 1893.—This work comprises a number of reports of cases observed in the wards of the Philadelphia Hospital, together with several statistical and biographical articles. This hospital, being part of an institution comprising hospital, almshouse and insane asylum, presents a rich and varied clinical material. The articles are partly by members of the medical board and partly by the resident physicians. Of thirty-eight papers on medical subjects twelve are on subjects connected with neurology or psychiatry. The neurologists, Drs. C. K. Mills, F. X. Dercum, J. Hendrie Lloyd and Wharton Sinkler, present some very interesting cases. We ought to have more of these and similar reports from the medical staffs of our great metropolitan hospitals.

G. J. KAUMHEIMER.

NOTES.

DR. MORITZ MEYER died in Berlin on Oct. 30, 1893. Dr. Meyer was the first specialist for electro-therapeutics in that city and published a work "On Electricity in its Applications to Practical Medicine" in 1854.

THE Medical Faculty of the University of Würzburg has conferred the Rinecker Prize of 1,000 marks upon Prof. Camillo Golgi, of Pavia, for his investigations in the physiology of the nervous system.

DR. W. A. JONES, of Minneapolis, has been appointed a member of the Board of Trustees of the State Insane Hospitals of Minnesota. Dr. Jones' extensive experience in the treatment of mental disorders especially qualifies him for this position.

BOOK REVIEWS.

A JUNIOR TEXT-BOOK ON NURSING IN BODILY AND MENTAL SICKNESS. Prepared by R. M. Phelps, A. M., M. D., Ass't. Supt., for the Use of the Junior Class of the Training School for Nurses of the Rochester State Hospital, Rochester, Minn. Printed upon the Rochester State Hospital Press, 1893.

This little volume of 138 pages is a syllabus of 28 lectures delivered by the author to a class just entering on a nurse's career. It is partly original and partly taken from other works on nursing. The lectures deal with a great variety of subjects, from anatomy and physiology to the handling of patients, sane and insane, the significance of various symptoms, the application of simple remedial agents, bed making and heating and ventilation. They are plain, to the point, full enough to give the student a clear idea of her duties, and yet not so explicit as to give her the idea that she is studying medicine. It is interesting to know that the composition and press work was done by patients of the Rochester Hospital.

A SENIOR TEXT-BOOK ON NURSING IN BODILY AND MENTAL DISEASES. Prepared by R. M. Phelps, M. D., Ass't. Supt., and S. L. Phelps, M. D., Ass't. Physician. For the Use of the Senior Class of the Training School for Nurses of the Rochester State Hospital, Rochester, Minn. Printed upon the Rochester State Hospital Press, 1894.

This little book is a valuable and worthy continuation of the preceding one. The opening lectures are devoted to the Classification and General Properties of Drugs, followed by detailed instruction in Special Nursing, Preparation for Surgical Operations, and Obstetric Nursing. Together, these two books lay down a course of study for nurses not excelled by any work the writer has seen.

G. J. KAUMHEIMER.

THE PHYSICIAN'S WIFE; AND THE THINGS THAT PERTAIN TO HER LIFE. By Ellen M. Firebaugh. With a portrait of author and 44 photo-engravings of original sketches. In one crown octavo volume of 200 pages. Extra cloth, \$1.25 net. Special limited edition, first 500 copies, numbered, and printed in photo-gravure ink on extra-fine enameled paper; bound in half-leather and vellum cloth, \$3.00 net. Philadelphia: The F. A. Davis Co., publishers, 1914 and 1916 Cherry Street.

A lively and entertaining account of some of the joys and trials which checker the life of these invaluable adjuncts to the medical profession as well as their experience with the "doctor as a man." Its style is sprightly and its tone healthy. The author, being herself the wife of a physician, knows whereof she speaks, and the book can be cordially recommended. It will furnish a few hours of entertaining reading, both to the doctor and his wife.

G. J. KAUMHEIMER.

DIFFERENTIAL DIAGNOSIS OF COMMON DISEASES OF THE EYES. Designed for the use of General Physicians. By W. F. Connors, M. D., Oil City, Pa. Price, post-paid, 50c.

A convenient tabulation of the prominent symptoms of the more common diseases of the eyes. "The intention is to help the family doctor to make a diagnosis without instruments or special knowledge," and this intention is well carried out.

G. J. KAUMHEIMER.

PAMPHLETS AND REPRINTS.

Olive Oil as a Remedy in the Treatment of Gastric Ulcer.—
By Emanuel J. Senn, M. D.

Sympathetic Ophthalmitis.—By H. V. Würdemann, M. D.

Mechanical Fixation of the Hip-Joint by Anterior Splint,
with Report of Cases.—By A. E. Hoadley, M. D.

President's Address, Milwaukee Medical Society, 1894.

Uterine Fibroids and Hemorrhage Treated by My New
Operation of Vaginal Ligation of the Base of the Broad Liga-
ment of the Uterus. Report of Sixth Case.—By Franklin H.
Martin, M. D.

The Absorption of Immature Cataract, with Restoration of
Vision.—By J. Hobart Egbert, M. D.

A Plea for the Aseptic Vaccine Virus and Aseptic Vaccina-
tion, with a Case in Point, and

A Contribution to the Study of the Accidents of Vaccina-
tion.—By Rosa Engelmann, A. B., M. D.

Critique of Macroscopic Examination of Specimens Re-
moved in Thirty-two Consecutive Laparotomies.—By F.
Byron Robinson, B. S., M. D.

Tait's Perineal Flap Operation.—By F. Byron Robinson,
B. S., M. D.

Bilateral Cerebral Thrombosis Due to Syphilitic Arteritis.
—By J. T. Eskridge, M. D.

Tumor of the Cerebellum.—By J. T. Eskridge, M. D.

Address of the President of the Section on Neurology and
Psychiatry of the First Pan-American Congress.—By C. H.
Hughes, M. D.

The Successful Management of Inebriety Without Secrecy
of Therapeutics.—By C. H. Hughes, M. D.

The Role of the Posterior Urethra in Chronic Urethritis.—
By Bransford Lewis, M. D.

Perityphlitis—Report of Three Cases of Perforating "Cae-
citis" and "Pericaecitis."—By F. C. Schaefer, M. D.

Three Cases of General Paralysis in Husband and Wife.—
By Richard Dewey, M. D.

Gold in Therapy.—By E. A. Wood, M. D.

Bulletin of the Electro-Therapeutical Laboratory of the
University of Michigan.

State Board of Health Journal, Nashville, Tenn.

Laparo-Hysterotomy, Its Indications and Technique.—By
N. Senn, M. D.

Deutsch-Amerikanische Medicinische Monatsschrift.—
Edited by Gustav Blech, M. D., and Paul Baer, M. D.,
St. Louis, Mo., Vol. I, No. 1.

NEW GERMAN BOOKS.

BINSWANGER. *Die Pathologische Histologie d. Grosshirnrinden-Erkrankung b. d. allgem. prog. Paralyse, etc.* Jena. Gustav Fischer.

RIEGER. *Grundriss d. Medicin. Electricitätslehre.* Jena. Gustav Fischer.

MEYER, KARL. *Ü. d. Combin. System-Erkrankungen d. Rückenmarksstränge bei Erwachsenen.* Wien. Wilhelm Braumüller.

NÄCKE. *Verbrechen u. Wahnsinn beim Weibe.* Wien. Wilhelm Braumüller.

JOLLY. *Irrthum und Irrsein.* Berlin. Aug. Hirschwald.

EDINGER. *Vorlesungen ü. d. Bau d. Nervösen Centralorgane.* Fourth edition. Leipzig. F. C. W. Vogel.

RIBOT, TH. *Der Wille.* Uebersetzt von F. Pabst. Berlin. Georg Reimer.

LÖWENFELD. *Pathologie u. Therapie d. Neurasthenie u. Hysterie.* Wiesbaden. J. F. Bergmann.

MANNHEIM, P. *Der Morbus Gravesii (sogen. Morb. Basedowii).* Berlin. Aug. Hirschwald.

THANHOFFER. *Neuere Beiträge z. Nervenendigung d. quergestreiften Muskelfasern.* Berlin. R. Friedlander u. Sohn.

MISCELLANEOUS MEDICAL NOTES.

A VALUABLE CATALOGUE.—We have received the Descriptive Catalogue of the Laboratory Products of Parke, Davis & Co. This differs considerably from the ordinary trade catalogue and is a very handy little work of reference. Its first part is an alphabetical index of materia medica, giving the botanical names, therapeutic uses, preparations and doses, followed by formulæ for making syrups and tinctures, tables of weights and measures, posological rules, therapeutic index and a large amount of miscellaneous information. This is followed by the usual price list and a number of views of the laboratories of this great firm. The book is one which may well be kept within easy reach for reference.

A NEW SPLINT FOR FRACTURES OF THE LEG.—We have received from Chas. Truax, Green & Co., of Chicago, the description of a new splint for fractures of the leg, the invention of Dr. William Meacher, of Portage, Wis. A description of the splint appeared in the *Medical Record* for Feb. 3, 1894. It seems to combine the advantages of a foot piece, which is missing in most of the metallic leg splints in the market, lightness, cleanliness and rigidity, being made of sheet metal. The manufacturers will mail a detailed description on request.

THE REVIEW

OF

INSANITY AND NERVOUS DISEASE

A QUARTERLY COMPENDIUM OF THE CURRENT LITERATURE
OF NEUROLOGY AND PSYCHIATRY.

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THE REVIEW OF INSANITY AND NERVOUS DISEASE.

FOR JUNE, 1894.

A COMPARATIVE STUDY OF EARLY-LIFE CONDITIONS IN 200 CASES EACH OF SANE AND INSANE PERSONS.

BY RICHARD DEWEY, M. D.

[Professor of Nervous and Mental Diseases, Post Graduate Medical School of Chicago. Attending Neurologist to the St. Elizabeth, the Emergency and the Augustana Hospitals. Fellow Chicago Academy of Medicine, etc.]

It is my endeavor to contribute herewith something to the study of the predisposing causes of insanity by presenting an analysis of the early life history of 400 persons, 200 sane and 200 insane, each equally divided between the sexes.

The facts were obtained by sending out 2,000 circulars asking for early life history of sane and insane persons. About one-half of the circulars were addressed to friends of patients in a state insane hospital and the other half to various persons, requesting history of sane adults with whose childhood they were acquainted.

The particulars inquired into were: As to parents of the individual, their nativity, habits as to use of alcohol and tobacco, as to death of parents while child was young; then as to whether various diseases affected the parents, as phthisis, syphilis, apoplexy, paralysis, insanity; also whether parents lived happily together.

Read before the Illinois State Medical Society at its Annual Meeting at Decatur, Ill., May 15, 1894.

The above are all facts which may be conceived to have a bearing upon the health, mental and otherwise, of children, but which have not been systematically collected and studied so far as I know.

Next, with reference to the early life of the individual, the circular inquired into parental government and discipline, work or idleness in the child while young, wealth or poverty, salubrity of climate, amount of schooling, habits as to tobacco, liquor, tea and coffee, onanism and sexual indulgence, the natural disposition and whether any especial change was noted at puberty.

Finally, the more serious diseases, peculiar to early life, and other serious diseases or injuries were made the subject of inquiry.

The importance of obtaining such facts as the above in sufficient number to admit of reasoning from them will doubtless be conceded by all, since the origin of disease is a thing of vital import, and since in neurology and psychological medicine, aetiology showing the beginning of disease and pathology revealing its end, must be brought under united mastery to admit of the most fruitful results in therapeutics.

The keenest inquiry should be directed to the beginnings of disease, and just as we search with intense earnestness for the sources of contagion in bodily diseases, hoping to reach a position where we can apply and enforce the golden maxim, "*obsta principiis*," so we should seek to turn upon the dim beginnings of mental diseases the light that science places in our hands when the obscure and baffling phenomena of madness confront us, and the interest attaching to these beginnings is all the greater since it involves those more occult spiritual and moral agents, which in purely somatic diseases play so much less a part, but perhaps form the *nidus* in which are nourished the germs of mental alienation.

Dr. Oliver Wendel Holmes, when asked as to the starting point for training and culture for the child, replied in substance that the place to commence was 100 years back, with

the great-great-grandfather, and it is doubtless true that the winds are sown with seeds of madness by parents whose children's children are to reap the whirlwinds of mental wreck and destruction.

In this it is of course recognized that physiology and psychology go hand in hand, and mental conditions are only considered as the result of bodily and structural physical conditions.

Before presenting the figures which I have obtained, I wish to say that I do not myself consider that the number of cases is sufficient or the history of each sufficiently full and accurate to furnish more than a few faint indications of the actual state of facts. The difficulties of such an inquiry are great, perhaps insurmountable. To illustrate:—How few there are who observe and remember the facts in all their extent, concerning any given case, and equally few are those who can and will fully and candidly state them, whether it be with reference to habits of parents or children, to the presence of the various vices or taints of the blood, or even the indifferent facts, and the sequence of events.

The 200 histories of the insane have come mainly from members of the family in each case, and are fuller in all points which the lay mind appreciates, while those of the sane persons have been given principally by physicians and educated men, who would secure more fulness and accuracy in facts having a professional bearing, but would perhaps possess less personal knowledge of the individual. Further, the histories given probably represent, in certain directions, opinions, rather than facts, and we must ask whether there is any motive for misrepresentation or prejudice, e. g. as where a mother-in-law gives the history of her daughter's husband. In such a case the dark colors of the picture may be slightly exaggerated; or, when a strict prohibitionist gives the history of a moderate drinker. Furthermore, under the best circumstances, the answer to some questions must be often left blank. Then the immense variations of different persons

in their accuracy, their prejudices, and the amount of their information must be taken into account, although the only course for the collector of facts is to take and use without prejudice, precisely what is given him.

A very large proportion also of the histories of such insane persons as would best illustrate the working of several of the morbid conditions under examination, are quite inaccessible. Those patients of foreign birth or parentage for instance, who preponderate largely in all public asylums, are very generally the ones concerning whom the least information is accessible. Cases in point would be patients who had drunken parents or were early left orphans, or grew up in neglect and poverty, in regard to very many of whom no points or previous history can be ascertained.

The question is an important one as to how far the sane and insane persons whose histories are here presented can be fairly placed in comparison; that is, how far they correspond in other respects than that of insanity. In regard to this, I may say that the 200 insane cases were obtained from the more intelligent friends of the patients in the state hospital. They occupy an intermediate station in life and represent all ages, both sexes, a great variety of occupations, and all the ordinary forms of insanity.

It would be desirable, if possible, to compare groups of insane with the sane, separating them upon the lines of age, sex, form of mental disease, etc., but this was found impracticable in the present instance.

The selection of the 200 sane persons was limited only by two stipulations; that they should be persons not younger than 25 or 30 years, and never have been insane. An equal number of each sex was also secured. The average age of the 200 sane persons was not less than 30 years, and, as extensive research has shown, that insanity manifests itself more generally between the ages of 20 and 35 than during any other period of life, we may suppose that in the matter of liability to insanity, they are equal to the average of sane

population, as I judge them also to be in other respects, knowing their station, occupation and general character. It was not thought best to attempt to secure histories of the exceptionally sound and healthy, but only of those who would represent the average sane population—indeed about twenty-five of the sane cases were of persons in general hospitals for treatment of acute bodily disorders. Taking the sane cases together, I think they will correspond fairly with the insane in their antecedents. It was found when the 400 cases were tabulated that there was uniformly a much larger proportion of “unknown” among the insane than the sane, and in some cases a question might arise whether, if we possessed the full history of every case, the ratios might not be changed, but as under every heading there was almost universally found to be a preponderance of the unfavorable or morbid conditions among the insane above the ratio found with sane, it is fairly to be presumed that the securing of the full facts would have increased and emphasized this difference in favor of the sane.

Finally, I may say generally, in regard to the information here presented, that I have endeavored to give the facts uncolored, and no preconceived notions have influenced the result, and if nothing of any especial significance is developed, yet, under the rule that it is as important to report one's failures as one's successes, I am justified in briefly taking up the different tables and reporting the results. I do not vouch for the correctness or truthfulness of all the statements furnished me about individuals, but have given exactly what was stated, and have not consciously allowed anything to get warped or twisted in the process of working it over.

First, as to the parentage of these 400 cases: The per cent. of native parentage among the 200 insane was 53.5 and among the sane 60; of foreign parentage it was among the insane 39.5 and among the sane 32.5. While the ratio of native parents preponderates among the sane, that of foreign parentage preponderates among the insane.

In regard to the use of alcohol and tobacco, it was found

that the ratio of parents of insane *not* using alcohol to excess was 57.5, of the sane it was 72, similarly in use of tobacco; the parents did *not* use it to excess in 45.5 of the insane and 63 of the sane. Among the insane in 5.0 of the cases both parents used tobacco, while no case was reported among the sane of the mother using tobacco at all, but *both* parents further used tobacco to excess in 1 and $\frac{1}{2}$ per cent. of the insane. Yet of the cases where the father *alone* used tobacco to excess, there were among the insane only 8.5 against 12, among the fathers of the sane.

Taking up the death of parents while children were young, we find that the parents both lived till after the child was over 15 in 74.5 per cent. of parents of the insane, and in 85.5 per cent. of parents of the sane, while in 20.0 among the insane, and 11.5 among the sane, one parent died before the child was 15.

The ratio of non-consumptive parents was 74 among the insane, against 89 among the sane. One parent had consumption in 15.5 per cent. among the insane and 10.5 among the sane. The ratio of scrofula was 9 among the parents of insane and 4 among those of the sane.

The ratio of epilepsy was 1 among parents of the insane, to 1.5 among those of the sane; that of apoplexy 4 among parents of the insane and 6.5 among those of the sane. That of paralysis 9.5 and 8 among parents of insane and sane respectively. That of insanity was 8.5 among the parents of the insane and 1.5 among those of the sane.

The parents lived happily together in 75 of the insane and 86.5 of the sane, and unhappily among 13.5 of the insane and 10.5 of the sane.

The parents were over indulgent in 16 of the insane and 13.5 of the sane. They were stated to be not over indulgent in 54 of the insane and 74 of the sane. The parents were too strict in 10 of the insane and 9 of the sane. Corporeal punishment was used in a slightly less ratio by parents of the insane than those of the sane, namely, 41.5 to 42.5. It was

reported not used in the proportion of 44.5 to 53.5 among the insane and the sane respectively.

There did grow up in neglect and poverty 6.5 of children who became insane and 3.5 of the sane.

There grew up in wealth and luxury 3.5 of the insane and 8 of the sane.

The proportion of the insane growing up in a malarial country was 26.5 and of the sane 22.5.

Too hard study was reported among 11.5 of the insane and 6 of the sane. The ratio of females studying too hard was 7 against 4 of males.

Nineteen of the insane had too little schooling against 16.5 of the sane.

There did not use tobacco while children 66.5 per cent. of the insane and 81 of the sane. 34.5 of the insane and 16.5 of the sane used tobacco before 15, and from 18 to 21 the percentages were 18 and 8, reckoning only the males in this calculation. Six insane females used tobacco, 2 before 18, 2 before 21 and 1 each at 24 and 35.

The ratio of the insane not using liquor while children was 78 and of the sane 80. 10.5 each of the insane and sane used liquor before 20 years.

Tea and coffee were not used by 12 of the insane and by 30 of the sane. These were used from infancy by 23.5 of the insane and 8.5 of the sane, used from 6 to 10, or while children by 54 of the insane and 48 of the sane.

There were reported as not practicing masturbation 39 of the insane and 60 of the sane. The number reported as practicing this habit was the same in each, namely 14.5. The unknown were reported as 45 of the insane and 25 of the sane. There seems to be little reliability about this, as might be expected.

The proportion of the insane who practiced sexual indulgence while young or before 18 was 6 as against 12.5 of the sane. There is perhaps a wide margin of uncertainty about this statement.

The "disposition" of the person is given as "natural" in 17 of the insane and 38.5 of the sane; "queer" in 16.5 of the insane and 4 of the sane; "nervous" in 35.5 of the insane and 24.5 of the sane; "quick tempered" in 36.5 of the insane and 29 of the sane; "slow or dull" in 7 of the insane and 4.5 of the sane.

There was reported a "change or disturbance at puberty" in 14 of the insane and 3.5 of the sane, and none in 45 of the insane and 69 of the sane.

No serious diseases in early life were reported in 64 of the insane and in 86.5 of the sane.

In my studies of the histories of individuals required for the preparation of the above figures, there has been impressed upon me one fact which does not appear in the tables given, and that is the extent to which all the injuries, defects and misfortunes, to which human flesh is heir, prevail among the insane, while the sane are in an equally marked manner free from them.

More than 5 to 1 is the proportion in which the serious misfortunes of life were found among the 200 insane and the 200 sane histories that are made the subject of these remarks.

The following table shows more in detail the difference to which I refer:

	Insane.	Sane.
Severe injury of head producing decided after effects.....	18	2
Severe bodily injury in childhood.....	15	3
Bad fright with serious after results.....	4	2
Severe scarlet fever, diphtheria, measles, meningitis, typhus and typhoid, with permanent injury following, also chorea, paralysis and convulsions.....	24	7
Poisoned by lye and fly poison.....	2	0
Over-heated with sun and serious after results.....	9	3
Severe mental strain from over-work and over-study.....	13	1
Congenital defects, mental or physical.....	6	0
Bad parental care or none in childhood.....	14	2
Convulsions not followed by epilepsy.....	6	2
Severe reverses in fortune.....	2	0
Total.....	113	22
Ratio per cent.....	56	11.1

Of course in several instances the same case comes under two or more of above heads.

As a matter of course, in considering the above figures, allowance must be made for one fact which is that in the case of persons who become insane, everything that has ever happened to them is apt to be brought out and perhaps an exaggerated importance given it in the light of subsequent events. Things which might happen and never be thought of again, concerning a person in health, will perhaps assume an undue importance if that person become insane; yet nothing but a perusal of the papers representing this collection of cases, would convey any idea of the difference. The histories of the sane, as a whole, seem comparatively tame and prosaic, while those of the insane fairly bristle with facts of an interesting though not wholly agreeable character.

In conclusion, it may be said with regard to the collection of cases here presented, that no very striking results are shown, but that the general tenor of the facts is such as to indicate that all the conditions regarded as injurious to bodily health and general mental and physical welfare in early life, preponderate among the insane as compared with the sane; but no one can doubt that there is much beyond these facts and probably more important elements working in the development of insanity, which are independent of outward conditions and belong to the individuality in a way which eludes a necessarily coarse form of analysis, like the present.

To take up some particular points: So far as use of alcohol and tobacco is concerned, the results are mainly negative, except that among the insane the young seem largely to use tobacco earlier than the sane. More than twice as many were found using tobacco before 15, the ratio being 34.5 per cent with the insane and 16.4 among the sane, while 66.5 of the insane did not use it while young and 81 of the sane, and 6 per cent of women used tobacco. The answers to questions about tea and coffee are rather striking, and show the non-use of either in childhood by 12 per cent. only of the in-

sane and by 30 of the sane, while they were used from infancy by 23.5 of the insane and only 8.5 of the sane, and from 6 to 10 years by 54 of the insane and 48 of the sane.

Concerning the death of parents, there seems to be a decided difference between sane and insane, in favor of the latter, as regards the frequency with which they are left orphans. The same is true as to the prevalence of phthisis in the parents, while with reference to epilepsy and paralysis the results are negative. Apoplexy was found in 4 only among the parents of insane and 6.5 among those of the sane. So far as insanity in the parents is concerned, it is evident, from what we know in other ways, the figures are worthless, as is so often found to be the case where the statement is made by interested friends.

A decided difference, in favor of the parents of sane, is found in extent to which they lived happily together, also in over-indulgence of children, and in neglect and poverty as well. The results are perhaps negative in the matter of corporeal punishment.

It would seem, if these figures are to be trusted, that wealth and luxury were more favorable to sanity than to insanity.

Four per cent. more of the insane than those of the sane grew up in a malarial country.

5.5 per cent. more of the insane are reported as studying too hard, than of the sane, and among the insane themselves 2.5 per cent. more of women than men.

In regard to sexual vices, but little reliance can be placed upon the results these tables yield.

There are certain facts brought out which may be considered quite reliable, since those giving them would be under no temptation to misrepresent. Such are the facts regarding the death of parents, and some of the diseases like phthisis; also the salubrity of climate. While on the other hand facts would be apt to be suppressed which related to insanity, syphilis, vicious habits of all sorts; also to domestic relations of parents, parental government, etc.

Again, in some matters of opinion, exceptionally good judgment is required to give a true answer, as whether children studied too hard, as to whether liquor or tobacco were used moderately or to excess, etc.

Finally, utter ignorance may prevail in many cases as to the presence or absence of various diseases about which only the physician can judge.

In closing I would say I hope the opportunity may yet be mine to collect a much larger series than the present of cases sane and insane, and to so complete the deficiencies of each individual case that something better worthy of attention may be produced.

The following table is a summary of the facts obtained:

TABLE SHOWING RELATIVE RATIO OF VARIOUS EARLY LIFE INFLUENCES IN 200 EACH SANE AND INSANE PERSONS.

	Sane.	Insane.
Parentage, native.....	60.	53.5
Parentage, foreign.....	32.	39.5
Parentage, unknown.....	8.	7.
Parents not using alcohol in excess.....	72.	57.5
Parents not using tobacco.....	63.	45.5
Both parents used tobacco.....	0.	5.
Both parents used tobacco to excess.....	0.	1.5
Father used tobacco to excess.....	12.	8.5
Parents both lived till child was 15 or over.....	85.5	74.5
One parent died before child was 15.....	11.5	20.
Non-consumptive parents.....	89.	74.
One parent had consumption.....	10.5	15.5
Scrofula in parents.....	4.	9.
Epilepsy in parents.....	1.5	1.
Apoplexy in parents.....	6.5	4.
Paralysis in parents.....	8.	9.5
Insanity in parents.....	1.5	8.5
Parents lived happily together.....	86.5	75.
Parents lived unhappily together.....	10.5	13.5
Parents over-indulgent.....	13.5	16.
Parents not over-indulgent.....	74.	54.
Parents too strict.....	9.	10.
Parents used corporeal punishment.....	42.5	41.5
Parents did not use corporeal punishment.....	53.5	44.5
Children grew up in neglect and poverty.....	3.5	6.5
Children grew up in wealth and luxury.....	8.	3.5
Children grew up in malarial region.....	22.5	26.5
Too hard study.....	11.5	6.
Too little schooling.....	16.5	19.
Did not use tobacco while children.....	81.	66.5
Used tobacco before 15.....	16.5	34.5
Used tobacco between 18 and 21 (males).....	8.	18.
Used tobacco (females).....	0.	6.
Did not use liquor while children.....	80.	78.
Used liquor before 20.....	10.5	10.5
Did not use tea and coffee while young.....	30.	12.
Used tea and coffee from infancy.....	8.5	23.5
Used tea and coffee while children.....	48.	54.
Did not practice masturbation.....	60.	39.
Reported as practicing masturbation.....	14.5	14.5
Habits as to masturbation unknown.....	25.	45.
Sexual indulgence before 18.....	12.	6.
Disposition natural.....	38.5	17.
Disposition queer.....	4.	16.5
Disposition nervous.....	24.5	35.5
Disposition quick-tempered.....	29.	36.5
Disposition slow or dull.....	4.5	7.
Change or disturbance at puberty.....	3.5	14.
No change or disturbance at puberty.....	69.	45.
No serious diseases in early life.....	86.5	64.

PSYCHICAL TREATMENT OF CONGENITAL SEXUAL INVERSION.

BY JAS. G. KIERNAN, M. D.

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While the victim of congenital sexual inversion cannot be regarded as a lunatic, nor as criminally nor civilly irresponsible, still there exists a peculiar psychical state closely akin to that of the hysteric or sexual neurasthenic. It is in just such conditions that suggestion and other phases of psychotherapy have been found of value. There is an undue exaltation of the "ego," together with abulic tendencies. There is a pretty prevalent tendency on the part of these anomalies to regard themselves as "interesting invalids" to whom sympathy is a duty. This notion, rather prevalent at present among them, is decidedly opposed to proper management of the abnormal symptoms. Among certain sexual neurasthenics imperative conception leads to the opinion that they are victims or are to become victims of sexual perversion. Their tendency to study literature anent the sexual organs has the usual tendency, as in other invalids, to lead to introspection and resultant imperative conceptions anent sexual perversions. Two such cases consulted during the past year, who were sexual hypochondriacs, who had formed the notion that they were incipient sexual inverts despite normal coitus and excitation by female images. The mental state here was the usual neurasthenic state in which uncertainty and abulia led the latest conception to dominate. It is this class in particular which has found pabulum for hypochondriac gloating in sexual pervert notions. Sexual perversion from the present standpoint may, as I pointed out a decade ago, (*Amer. Lancet*, Vol. VIII,) be divided into the following classes: 1. Those which originate in imperative conceptions. 2. Those due to congenital defect. 3. Those which are incident to insanity,

periods of involution or evolution, or to neurotic state.

4. Those which result from vice. These last arise from the fact that nerves too frequently irritated by a given stimulus require a new stimulus to rouse them. Finally there occur types in which all four are mixed. These states are in many instances decidedly controllable by "auto-suggestion," aided by the ordinary treatment for neurasthenia. This "auto-suggestion" is best secured by showing that the mental state is considerably under the patient's control and that inattention to hygienic and therapeutic details tends to diminish this control. In certain cases, males and females at the age between 45 and 60, impulses toward inverted and perverted sexuality occur. These are treatable often by suggestion of the type just described, so that the perversion as well as erotic excesses are kept under control. Even in the congenital such suggestion will often exert an excellent influence. This was excellently illustrated in a case I reported some ten years ago.*

The patient was a twenty-two year old girl who had a neurotic ancestry on the paternal side. Her face and cranium were symmetrical. The patient had always liked to play boys' games and to dress in male attire. She felt herself at certain times sexually attracted by some female friends with whom she indulged in mutual masturbation. These feelings came at regular periods, and were then powerfully excited by the sight of the female genitals. The patient in the interval manifested only repugnance to attentions from men. She had been struck with the fact that while her lascivious dreams and thoughts are excited by females, those of females with whom she has conversed, are excited by males. She, therefore, regarded these feelings as morbid. At times she had imperative conceptions, such as that if she turned her head around she would break her neck. To avoid this ideal danger she at times carried her head in a very constrained position. This patient was treated as if afflicted by nymphomania. The usual balneotherapeutic and other anaphrodisiac

*Amer. Lancet, Vol. VII., p. 483.

measures were employed and at the same time a course of intellectual training was instituted. For a long time the patient was enabled to keep the feeling under control and it was for some years quiescent. The patient later formed a friendship with a woman of like literary and musical tastes. This friendship became a perverted love and the two were almost inseparable. To secure the companionship of her friend the patient was induced to marry the friend's brother. The union was not congenial to the patient except that it secured the companionship of her friend. Sexual intercourse excited perverse images in which the husband (who resembled the sister) appeared as another sister. Under these images the patient endured and even enjoyed sexual intercourse and conceived a languid liking for her husband, who was much attached to her and his sister, and chivalrous in his kindness to them. These relations lasted some years, the esteem and liking of the wife for the husband increasing, but paling before the devoted, deep, though perverted affection for the sister. The sister died from an acute attack of pneumonia, devotedly nursed by both wife and husband. The marriage had been unfruitful, but less than a year after the sister's death, a daughter was born who much resembled her. The wife's esteem passed through love of the sister, to intense maternal love of the daughter, as resembling the sister; through this to normal love of the husband as the father and brother. The congenital tendency to females is now entirely kept in check by this love.

The denouement in this case and the mental phenomena indicate to one that there is entirely too much sympathy wasted on these patients, since sympathy to them is as poisonous as to the hysteric whose mental state is very similar.

Insistence on the morbidity of the pervert ideas and prohibition of sexual literature as in the sexual neurasthenic together with allied psychical therapy and anaphrodisiac methods cannot but benefit. These patients, like the hysteric, will not "will" to be cured while they are subjects of sympathy.

TRANSLATORS AND ABSTRACTORS.

ENGLISH.

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NEUROLOGICAL.

ANATOMY AND PHYSIOLOGY.

THE INNERVATION OF THE BLADDER.—M. v. Zeissl reports on experiments made on the curarized dog (*Arch. f. d. ges. Physiologie*, Bd. LIII.). He found that irritation of the erigent nerve, which arises from the first three sacral roots, caused primarily, contraction of the detrusor muscle and secondarily, relaxation of the vesical sphincter, even if the branch to the detrusor was cut. Irritation of the hypogastric nerves caused closure of the sphincter; no motor effect upon the vesical muscle was noticed. He concludes that the nervus erigens contains motor fibers for the detrusor and inhibitory fibers for the sphincter; the hypogastric nerves, motor fibers for the sphincter and inhibitory fibers for the detrusor muscle.—(*Neurolog. Centralbl.*, No. 2, 1894.)

G. J. KAUMHEIMER.

THE FUNCTION OF THE FRONTAL LOBES.—Bianchi, as the result of experiments upon dogs and monkeys, dissents decidedly from the views of Munk and Goltz, that the frontal cortex has no especial connection with the intellectual faculties. Hitzig believes that the frontal lobes are at least the center for abstract thought. B. finds that if that part of the cortex lying in front of the base of the frontal convolution in the monkey, and which is absolutely unexcitable electrically, is removed, no disturbance of motion or sensation results. If the base of the convolution be removed, deviation of the head, or of the head and eyes, toward the injured side takes place, but does not persist. The principal symptoms observed after removal of the frontal lobes in the monkey are: 1. Excitement, restlessness, with a continual running back and forth with but few and short pauses. 2. Absence of curiosity and of those gestures which are peculiar to the animal, with absolute lack of interest in the surroundings. 3. Loss of interest and affection for cage mates and other animals, which, before operation, were made much of. 4.

Decided reduction of sexual desire and power, both in male and female. 5. The animals were easily frightened by noises, or for instance, by a dog which they did not well know. When once frightened it was very difficult to soothe and quiet them. The fright seems to be due to a lack of reflection and psychical depression. 6. Loss of reflection and judgment. They will pick up and eat a piece of chalk, simply because it lies nearer to them than a piece of sugar, making the same mistake again and again. 7. Gluttony and senseless hoarding of everything within reach. (*Berlin Klin. Wochenschr.*, No. 13, 1894.)

G. J. KAUMHEIMER.

FUNCTIONS OF THE CEREBELLUM.—A report of some of the researches of Dr. Risein Russel appears in *The Lancet*, March, 1894, in which he found that when the cerebellum was intact the excitability of the cerebral hemispheres to the induced current was equal on the two sides; when, however, one half of the cerebellum was removed it was found that the opposite cerebral hemisphere was more sensitive to the current than its fellow and this difference in excitability persisted and existed three months after the half of cerebellum was removed. The administration of absinthe to other animals similarly treated, produced increased excitability of the opposite cortex as evidenced by exaggeration of convulsion on side of cerebellar lesion and it appeared that the convulsion on the other side was diminished. Also a difference in the kind, for the tonic spasm characteristic of the second stage in a dog with the cerebellum intact was more or less replaced by clonic spasm on side of lesion; such results apparently demonstrate the upward action of the cerebellum on the cerebrum; probably of an inhibitory character. Whether the rigidity, paresis and other symptoms which follow removal of one-half of the cerebellum are the result of this influence alone, or whether there is also a downward action on the spinal cord, is not quite clear.

T. W. BISHOP.

FUNCTIONS OF THE PITUITARY BODY AND ITS RELATIONS TO CENTRAL NERVOUS SYSTEM.—After recording his careful observations, Dr. W. L. Andriezen, (*Brit. Med. Jour.*, Jan. '94,) concludes as follows: The predicable results of the ablation or destruction of the gland would be those due to (a) a mal-assimilation of oxygen by the nerve tissues and simultaneously (b) an insufficient destruction and therefore accumulation of the waste products, thus bringing about a rapid nutritional failure and death of the central nervous system. In

general terms we would therefore expect in the animal: 1. Depression and apathy (the commencing failure of activity in the nerve centers.) 2. Muscular weakness (the first peripheral effect). 3. Loss of fine co-ordination and equilibration. 4. The development of twitchings and irregular contractions (spasms) of the muscles (in relation to the further progress of nutritive failure of the nerve centers). 5. The want of sufficient heat production and subnormal temperature. 6. A wasting of the body tissues. 7. A probable compensatory polynœa, or attacks of dyspnœa (the peripheral indication of the failure of the nerve centers to assimilate oxygen). 8. Rapid progress towards death.

T. W. BISHOP.

INFLUENCE OF THE CORTEX UPON DEGLUTITION.—Although swallowing is not abolished in unconsciousness, nor after destruction of the cerebrum, cerebellum or pons, there is no reason to doubt that it is to some extent at least under the influence of the cerebral cortex, as it is also a voluntary act. As nothing can be found in literature in regard to the influence of the cortex on deglutition, Bechterew and Ostankow have attempted to solve the question experimentally. After slightly stupefying dogs, a thin rubber bulb attached to a rubber tube and filled with water was inserted into the pharynx. The outer end of the rubber tube was connected to a Marey tambour and registering apparatus. The anterior portion of the skull was then trephined. The authors soon found a spot, the irritation of which caused movements of deglutition, which were visible to the eye as well as registered on the apparatus. This region was quite limited and was located at the anterior end of the second fissure (frontal?). An ideal prolongation of the sulcus cruciatus would bisect this deglutition center. The effect was the same if the proper region of either hemisphere was irritated. On irritating a spot on the upper edge of the second convolution, a little above the center previously described, rapid respiration with prolonged expiration, followed by deglutition, was noticed. This justifies the assumption of the juxtaposition of the cortical centers for expiration and deglutition, which was to be expected from an analysis of the physiology of the latter. (*Neurolog. Centralbl.*, No. 2, 1894.)

G. J. KAUMHEIMER.

CONTRIBUTION TO THE ANATOMY AND PHYSIOLOGY OF THE NERVOUS SYSTEM IN THE NEW BORN.—Westphal reports the result of exact studies made to corroborate observations made by his father. He found in the new born child a very decided

reduction of the indirect excitability for both currents and of the direct faradic excitability. Galvanic currents strong enough to produce intense tetanus in the adult, caused only slight contraction. Distinct variations were observed in the behavior of different nerves and muscles of the same, and identical nerves and muscles of different subjects. The contraction was, in all cases, slow. The resistance of the skin is high in the first weeks of life, as Jolly and others have pointed out. In connection with these experiments, he examined the nerves of new born and young children, mainly by the osmic acid method. He found that the nerve fibrils in the new born showed a great paucity of myelin sheaths. Where present, they are often interrupted. Different fasciculi of the same nerve show very different phases of development. The axis cylinders were seen to be universally present, of a greenish color, and showing a medullary sheath in places. The presence of the sheath of Schwann is doubtful. Ranvier's nodes and the arrow markings of Schmidt were not seen; the nuclei were very large, often granular and occasionally surrounded by protoplasmic masses. He cannot state that they are more numerous than in the adult. It is certain that the fibers are much finer than in the adult, the smallest being 1.2 to 2 μ . in diameter, the largest 3 to 4 μ ., the average being 3 to 4 μ . to 15 μ . in the adult. During the third to sixth week the myelin sheaths become more numerous and the diameter of the fiber is doubled. At the age of eight months the gaps are few and small, although the cross section still presents a spotted appearance. The muscular fibers of the new born infant are almost circular and gradually become polygonal. Its diameter is from 10 to 12 μ . Muscle buds are numerous and nuclei frequent. These anatomical investigations acquire considerable importance in view of Bechterew's assumption, that the nerves become electrically excitable only when the medullary sheath has reached a certain development, and of Erb's clinical experience that during the decline of R. D., the excitability returns only when the regeneration of the myelin sheaths has taken place to some extent. In explanation of the slow contraction, W. points out the great resemblance histologically between the degenerate nerve and that in the new born. (*Neurolog. Centralbl.*, No. 2, 1894.)

G. J. KAUMHEIMER.

HYGRIC SENSIBILITY.—Tambroni (*Rivista Sperimentale*, XIX, IV, Dec. 31, 1893), reprints the two cases of Ramadier (*Ann. Med. Psych.*, 1888) from which he claimed the existence of a special sensibility for humidity, and adds one of his own, quite elaborately reported, together with the autopsy. The

disturbance (hyperaesthesia, hallucination and perversion) of the hygric sensibility, was very marked, and at the post mortem a softening of both hippocampal gyri and two minute patches of the same in each hemisphere, symmetrically disposed, one on the inferior surface near the internal margin and the other on the antero-external margin of the inferior surface.

He concludes that his case, together with the two of Ramadier, demonstrates "that, independent of any other disorder of cutaneous sensibility, we may have a disorder of that special sensibility that permits us to appreciate the different degrees of humidity of objects brought in contact with the skin."

In Tambroni's case, besides this special disorder of sensation, the hearing was affected. In the first of Ramadier's the olfactory sense was disordered, and in the second there were auditory hallucinations and epilepsy. One of Ramadier's patients was a paretic; Tambroni's was a melancholiac in his clinical phase.

H. M. BANNISTER.

ON ARTIFICIAL CHANGES IN THE ELECTRICAL REACTION OF THE HUMAN NERVE.—R. Geigel, while examining a patient suffering with tetany, found that he obtained a cathodic opening contraction from the median nerve, which before had required a maximum current, with a very weak current if pressure was exerted in the bicipital groove. On removing the pressure, the strong current was again required. This led him to make further experiments from which he concludes (*Deutsch. Arch. f. Klin. Med.*, Bd. LII.): If the extremity of a healthy individual is constricted by means of an elastic tube, the electrical reaction of the nerves below the constriction undergoes a change, as shown by a change in the contraction formula. Both opening contractions are increased, K. O. Z. to a greater extent than An O. Z. He suggests for this the name, reaction of compression. 2. It cannot be definitely stated whether this change is due to the compression of the nerve or of the vessels. 3. This change in reaction is not found above the constriction, where there is simply reduction of excitability. (*Neurolog. Centralbl.*, No. 3, 1894.)

G. J. KAUMHEIMER.

THE ELECTRICAL CONDUCTIVITY OF THE HUMAN BODY.—Dr. Dominicus d'Armau reports the following conclusions: 1. The methods heretofore used for the determination of the resistance of the human body are faulty and unavailable, especially Wheatstone's method. 2. The electrical current

risers, as a rule, but not invariably, with the potential. 3. The conductivity of the body increases during the application, except on the palms and soles. 4. Resistance decreases with the increase in the size of the electrodes, their moisture and the concentration and temperature of the saline solution employed. 5. Resistance is greatest in the extremities, least in the face. 6. The initial resistance in the palms and soles is almost the highest of the entire body, but increases during the application of a current of low or moderate potential, often to a considerable degree. On the dorsum of the hands and feet, resistance decreases during application. 7. The resistance of the human body varies from 260 to 1,250,000 ohms. 8. The resistance varies in different morbid conditions; it is usually high in hysteria, epilepsy, melancholia, idiocy (the decrease is moderate in epilepsy, greater in melancholia and especially in idiocy) and usually low in Graves' disease, chorea, mania, neurasthenia, and lowest in tetanus; in hemilateral lesions (hemiplegia, atrophy) it is variable. 9. On reversing the current, the resistance usually decreases, but not invariable nor always in the same degree; it may even rise. 10. The diminution of resistance during the passing of the current is peculiar to the animal organism and is probably physiological, as it is observed to a slight degree in the corpse.

Practical Conclusions.—1. The indifferent electrode should be replaced by a bath in which the arms or legs are immersed, because at the sternum or other place usually selected, the resistance falls rapidly; besides, the trouble due to insufficient apposition of the electrode, its deficient moisture, etc., are avoided, and owing to the extraordinary size of the indifferent electrode, weaker currents are required and pain is minimized. 2. The current should be allowed to act at least two minutes before being broken, as during the first two minutes the resistance fluctuates rapidly and widely. (*Neurolog. Centralbl.*, No. 5, 1894.)

G. J. KAUMHEIMER.

THE PHYSIOLOGY AND PATHOLOGY OF READING.—Two theories have been advanced to explain the psychical processes involved in reading. One is, that it is by spelling, that each letter is recognized optically and recalls the proper sound picture, and that the combination of these form that of the word. According to this theory, the expert reads like the learning child, but of course, at much greater speed. The other theory is that the word itself is perceived and excites its proper vocal memory. Goldscheider and Müller (*Zeitschr. f. Klin. Med.*, XXIII.) have attempted to decide this question

experimentally. They used an apparatus which allowed the exposition of letters and various combinations of them, for an accurately measured period of time. They first attempted to determine if apperception of all the characteristics of the letter or word was necessary to awaken the vocal memory and found that even a slight resemblance to a familiar combination, was perceived as such and awoke the corresponding vocal picture. For single characters the minimum of exposition was 0.0068 seconds. Recognition was easier with rapid than with slow exposition; the most favorable exposure time was 0.01 second. They next found that series of four letters, arbitrarily arranged, were recognized at one exposure of 0.01 second; five or more letters or figures required repeated exposure. Words and word-groups, consisting of four letters, were recognized at the first exposure. If the word contained five or more letters, repeated exposure was required unless the word was a familiar one. It was found that the subjects had a tendency to combine recognized letters into the words whose components they were, and that in longer words, a part was recognized and recalled a vocal memory at the first exposure, while the remainder of the word was spelled out at subsequent exposures. The part of the word recognized varied with the subject. Persons of little education show a greater tendency to spell than well educated subjects. The errors made were literal, verbal and mixed, or indeterminate. Sentences were recognized after an exposure of 0.03 seconds, but not by the recognition of each letter, but by completion by the aid of memory. This was proven by the fact that very familiar sentences (proverbs, etc.), were recognized after one or two exposures, while intentional errors (transposition or omission of letters) required seven or eight exposures for their detection. Lastly, the authors attempted to determine which letters of a word aided most its quick recognition. The result was found to depend upon the intelligence of the subject and the variety of words at his command. The initial letter is almost always a determining letter. They conclude that we read by a combination of methods, spelling, recognition of letter groups, association and guessing, being combined. (*Neurolog. Centralbl.*, No. 1, 1894.)

G. J. KAUMHEIMER.

MODIFIED GOLGI'S METHOD FOR THE STUDY OF THE HUMAN BRAIN.—Dr. Andriezen says that the following has given good results which are almost constant for the human brain: (a) Thin slices (2 to 4 mm. in thickness) of brain, with the pia-arachnoid intact, are suspended by a thread or a glass (or platinum) hook, in K. bichromate 2 p. c.—95cc., to which,

after 10 to 15 minutes, add 5 cc. of 1 p. c. osmic acid, keep in the dark for 24 hours; (*b*) then change into K. bichromate 2½ p. c.—90 cc., in which keep specimen (suspended) for two days; (*c*) finally change into Golgi's mixture of K. bichromate 3 p. c.—80 cc., osmic acid 1 p. c.—20. The total fixation and hardening of 3½ days shows nerve cells and the two types of glia cells (fiber cells and protoplasmic cells) well; 4½ days show more nerve cells, especially cell bodies; 6 days are needed to show axis cylinders, nerve fibers, collaterals. On an average it is well to have two specimens, hardened 3½ and 4½ days respectively; (*d*) rinse in distilled water for one or two seconds, and plunge into AgNO₃ solution (¾ p. c.) in the dark for five to fifteen minutes; (*e*) then change into 100 to 120 cc. of AgNO₃ solution, to which one drop, not more, of formic acid has been added, and (*f*) place in incubator, in the dark, at T. of 25 to 27 degrees C., changing it for fresh silver solution after 24 hours; (*g*) the total staining in the silver solution should be 3½ days or 4½ days respectively, often three days suffice; (*h*) rinse in methylated spirit and fix in wax, or spirit 15 minutes, followed by absolute alcohol 15 minutes, thin celloidin ½ hour, and fix on cork; (*i*) cut under spirit; (*k*) pick out the best sections and place in large quantity of distilled water till nearly freed from spirit, about 5 minutes; (*l*) then place sections in ¾ p. c. solution of AgNO₃ for ½ to 1 hour; (*m*) dehydrate in spirit, then in xylol-piridine, equal parts; (*n*) clear in xylol (twice), and mount, after blotting, in xylol-dammar, without a cover-glass, hastening the process of drying by placing the slides in the incubator at T. of 37 to 40 degrees C. for a day or a little longer. This procedure (*n*) is necessary, otherwise, even after months, the specimens may begin to spoil. Successful preparations show the nerve cells and their processes down to their finest ramifications and endings, and the same holds with regard to the glia cells, both protoplasmic and fiber cells; and all these cell elements are sharply differentiated from one another and from the clear ground substance. Axis cylinders and collaterals are seen, somewhat abundantly, also nerve fibers ascending and ending freely by branching fibrils in the cortex. The method is applicable to brains provided post-mortem changes are not too advanced, or the tissue disintegrated or softened. (*Brit. Med. Journal*, April 28, 1894.)

B. M. CAPLES.

THE ACTION OF SILVER NITRATE ON THE NERVOUS ELEMENTS.—Fischel (*Arch. f. Mikr. Anatomie*, 1893, XLII) has found that the transverse striation seen in nerve fibers and ganglion cells after the action of silver nitrate is artificial and

not due to structural peculiarities. He has found the same striation in Wharton's jelly, in the connective tissue of the skin, in the larger vessels, the kidneys and other organs. He concludes that this striation may be found in any colloid tissue hardened in nitrate of silver solution in the presence of an acid. H. Rabl (*Sitz. Ber. d. k. Akad. d. Wiss. in Wien.*, 1893, CII) has independently reached identical conclusions. (*Neurolog. Centralbl.*, No. 1, 1894.)

G. J. KAUMHEIMER.

PATHOLOGY AND SYMPTOMATOLOGY.

OPTIC NEURITIS AS A SIGN OF BRAIN TUMOR.—Dr. William H. Wilder says blindness has long been recognized by clinicians as one of the manifestations of intracranial disease, particularly in those affections of the brain substance itself, or its envelopes, that develop irritative lesions or occasion increased intra-cranial pressure. Optic neuritis is widely recognized as one of the most important objective signs in the diagnosis of certain intracranial affections and the consideration of the relative value of this symptom in brain tumor is the one to which he calls especial attention. With the view of showing what value might be ascribed to optic neuritis as a diagnostic sign in cases of brain tumor, the author publishes the following table of 161 cases collected by him, giving the number and nature of the different growths:

Sarcoma	46	Lymphangioma	1
Glioma.....	25	Fibroma	3
Glio-sarcoma.....	13	Angioma Cavernosum.....	1
Myxo-glioma.....	1	Cysticercus.....	1
Cystic glio-sarcoma.....	3	Hydatid cyst.....	6
Tubercle	12	Cylindroma.....	1
Fibro cyst.....	1	Myxo sarcoma.....	2
Serous cyst.....	8	Uncertain cysts.....	7
Gumma	7	Hemorrhagic cysts.....	2
Endothelioma.....	1	Not recorded.....	14
Carcinoma.....	6		
			161

It is thus seen that growths of the type of glioma and sarcoma with their mixed forms comprise 90 of these 161 cases. Of the whole number of cases, 161, there was no mention of the condition of the sight or of an ophthalmoscopic examination in twenty-one; while in the remaining 140 it was distinctly stated that no optic neuritis existed in thirty-six and that it was present in ninety-eight. Mention is also made of blindness in six cases, although no ophthalmoscopic examination was made, so that these were without question cases of atrophy following inflammation of the nerve. This gives us

104 cases of optic neuritis out of 140, or 74.3 per cent. In all probability this percentage would have been somewhat greater, if more frequent examinations had been made in the cases where no optic neuritis is reported; for it is a well known fact that this condition may be absent during the course of some cases to develop suddenly at the last, while in others it is one of the earliest signs. (*Chicago Med. Recorder*, May, 1894.)

B. M. CAPLES.

TUMOR OF THE BRAIN SIMULATING A VASCULAR LESION.—Dr. Eskridge reports a case in which the symptoms point to an entirely different lesion than the one from which the patient suffered. Male, 27 years of age. On rising apparently as well as usual, began to dress himself, fell to the floor. When found shortly afterwards was confused and unable to rise; left arm and leg were almost completely paralyzed; face apparently unaffected; right knee-jerk slightly increased, left a little greater than right; plantar reflexes absent and ankle-clonus could not be elicited; cremaster and abdominal reflexes slight on right side and absent on left; pupils equal and widely dilated, but reacted slightly to light. On examination of the fundi of the eyes a condition of bilateral optic neuritis was found; disc more swollen in right eye than in left and presented distinct atrophy of optic nerve with arteries very small. Stuporous condition deepened rapidly, and some hours afterwards it was impossible to elicit any intelligent response from him. Diagnosis of tumor of the brain made. Post mortem showed sinuses and veins of the dura distended with dark fluid blood; veins of pia everywhere filled with dark fluid blood. The centrum ovale of the right hemisphere from near its posterior portion in the occipital lobe to the point opposite the middle of the fissure of Rolando, showed evidence of disease. This area was occupied externally by what appeared to be ragged brain substance, portions of which were softer than the normal brain tissue, while others presented increased resistance to the finger. In the anterior of this tumor-like mass was found one or two ounces of yellow, watery fluid and in another portion, which was separated from the cavity containing the watery fluid by a portion of the growth, a sanguino-purulent gummy-looking material was found. The hardened portion of the brain substance posterior to the semi-fluid material, showed the usual appearance of gummatous infiltration. In another case of syphilitic growth of the brain operated on for the author by Dr. Parkhill, about two years ago, a cavity containing about four ounces of yellowish watery fluid, was found and microscopic

ally the brain substance was indurated and softened around this cavity for some distance. The author believes in the early operation for the removal of syphilitic growths, if symptoms do not rapidly disappear under vigorous anti-syphilitic treatment. (Reprint from *Medical News* of March 10th.)

B. M. CAPLES.

CEREBRAL GLIOMA OCCURRING IN A PATIENT WHO HAD SUFFERED FROM A FRACTURE OF THE SKULL THIRTEEN YEARS PREVIOUSLY.—A case of the above description is recorded by R. M. Williams in a woman of 32 years. During the 13 years from injury to attack she had enjoyed good health with exception of neuralgic attacks. Complained first of not feeling inclined to take exercise, pain of shooting, sometimes throbbing character, at top and back of head and neck; at times felt faint, but never lost consciousness; no affection of sensation or sense of smell and taste, vomiting but twice. For ten months symptoms progressed culminating in loss of consciousness and violence, a barely perceptible and irregular pulse and death at onset of one of her syncopal attacks. Necropsy showed: signs of old fracture of both middle fossæ; dura and arachnoid healthy, pia cloudy; an oblong tumor, soft in center, firmer at circumference, $1\frac{1}{2}$ by $1\frac{1}{4}$ inches involving anterior portion of right superior frontal convolution, was removed. Syncopal attacks being the main feature of the case gives rise to the query as to whether there is any functional relationship between the part of the brain affected and the heart. (*The Lancet*, '93.)

T. W. BISHOP.

CASE OF CYST OF CEREBELLUM.—Dr. William F. Wegge, in the March issue of the Journal of the American Medical Association, reports case of cyst of cerebellum occurring in man aged forty years, sewer builder; while at work patient would at times appear unconscious for short periods at which time left eye would wink frequently, headache complained of. When seen in September was rather stupid, had severe general headache, vertigo, numbness of extremities, temperature 97 degrees, pulse small, 108, singultus and belching of gases present, but no vomiting. Complexion sallow, face dull, expressionless and rigid. Mental vigor fast waning; left eye closed spasmodically at intervals, tongue protruded slightly to left, speech tremulous, hearing defective; tendency to fall toward right, later toward left; weakness of extremities, but no paralysis; total blindness; patellar reflexes exaggerated. Died in January, '94.

Autopsy showed dura thickened in places, adherent to pia at these places; vessels distended with blood; ventricles much distended with clear fluid; right olivary body and olfactory bulb absent; left lobe cerebellum larger; right bulging anteriorly; on incision 2 oz. fluid escaped and tumor size of filbert found in cyst wall.

Points of interest.—Patellar reflexes exaggerated; at first tendency to fall toward right followed by tendency toward left; no epileptiform convulsions at any time.

T. W. BISHOP.

A LARGE CEREBRAL TUMOR WITHOUT HEADACHE OR CHANGES IN FUNDUS OF THE EYES.—Prof. P. K. Pel reports the case of a woman of 47, previously healthy, who, in the spring of 1892, noticed paraesthesia of the fingers of the right hand, which had come on so gradually that she was unable to fix the date of its appearance. This was followed by a paresis which gradually involved the hand and forearm. In May, 1893, the right leg became paretic. Weakening of the intellectual faculties had been noted before this, with changes in temperament. On May 10, 1893, she had an epileptiform convulsion, which was followed by a permanent partial aphasia. The convulsions were repeated later and memory and intellect gradually failed. Repeated careful examination showed absolutely normal eyes, nor did repeated questioning elicit complaints of nausea, vomiting, vertigo or headache. Only a few days before operation headache was complained of. The exact diagnosis presented considerable difficulty. Although it was certain that the lesion was situated in the psychomotor centers on the left side, it was impossible to determine whether it was a chronic abscess, softening or a tumor. As all medication was futile, operation was decided on, and carried out in October, 1893. The operation disclosed a tumor lying over the left motor region. It was a soft fibroma, not adherent to the dura or to the convolutions. It was easily removed, and was of the shape of a large chestnut 5.5 cm. long, 4.5 cm. broad and 2.5 cm. thick. The accompanying sketches show that its main bulk was over the upper end of the anterior central convolution, although it extended over the adjacent parts of the posterior central and superior frontal and a small part of the middle frontal convolutions. Unfortunately the patient died soon after the operation. Sensation over the entire body, including the muscular sense in the paralyzed right arm was intact. Pel attributes this, in accordance with Nothnagel's theory, to the location of the center for sensation in the parietal lobule. (*Berlin Klin. Wochensch.*, No. 5, 1894.)

G. J. KAUMHEIMER.

A CASE OF ACUTE CIRCUMSCRIBED SOFTENING OF THE FIRST AND SECOND LEFT TEMPORAL CONVOLUTIONS.—SOUL DEAFNESS AND APHASIA THE ONLY PERMANENT SYMPTOMS.—Dr. Mader reports this case. Patient, female, aged 50, became unconscious and lost power of speech for three days, after an attack of vertigo and vomiting. When first seen, 19 days later, she was excited, emotional, and spoke almost constantly but unintelligibly. Made no effort to name objects shown her and did not repeat words or letters spoken to her, nor did she understand them, although hearing was not affected. There was no soul blindness; objects were used correctly and all housework done properly. No disturbance of taste or smell, or of sensation and motion; pupils normal. The whole disturbance was psychical. Four months later, after a severe headache, a right-sided hemiplegia without loss of consciousness, but with complete loss of speech, set in. The hemiplegia improved somewhat and the paraphrasia again returned, nevertheless death occurred 10 days later. Autopsy showed yellow and white softening of the left upper and middle temporal convolutions; yellow softening of the posterior convolution of the left island of Reil, and the posterior half of the left operculum. The surrounding cerebral tissue was oedematous. This case is of interest, because only such convolutions were affected, which Munk and Ferrier proved by experiments on animals, to be related to hearing. The extension of the degeneration to the operculum, island of Reil, and surrounding cerebral tissue, probably occurred during the second and fatal attack. The hemiplegia can only be accounted for by a change in the left motor area, not apparent microscopically. The psychical disturbances correspond minutely with the experiments on lower animals, both in a negative and positive sense. Negatively, by the absence of disturbance of sensation, motion, taste, smell and sight, and positively, by the complete soul deafness and the unintelligible paraphrasia. Simple hearing was not disturbed, because the right temporal and left third temporal convolutions were unaffected. The latter being the center for elementary hearing, while the two upper convolutions are the center for complex auditory representations. Analogy leads to the assumption that the left hemisphere is the seat of auditory representations related to speech, namely those of words and sentences and these representations were absent in the patient. Words spoken to her or objects presented, recalled nothing. (*Wien. Med. Blætt.*, No. 8, 1894.)

CASE OF ACUTE SOFTENING OF THE BRAIN PRESENTING HYSTERICAL SYMPTOMS AND SIMULATING HYSTERIA.—Dr. Theo. Diller, (*Med. Record*, April 28, 1894,) presents a remarkable case beginning apparently as the result of a psychical impression which the patient received as the result of deep concern for the threatening paralysis (as she thought) of her grand-daughter's arm. Having learned of a painful affection of her grand-daughter's right arm, this woman, aged 56, began in a vague manner to complain of numbness in her own right arm; in few days exhibited some hesitation in speech; decided hysterical symptoms developed. At end of ten days had feeble pulse, accelerated respirations, rise of temperature up to 106.4° F., coma deepening until death occurred in a few days. For a time case was regarded as a hysterical one, but with development of fever some organic change in left hemisphere was predicted as history seemed to preclude hemorrhage or embolism; abscess or softening then seemed the condition present. Autopsy showed the morbid condition present was an acute atheromatous or senile softening; the lumen of internal carotids at entrance to cranium being narrowed and occluded by dark brown clots. The predisposing conditions for acute softening being present in such a degree it is evident that only a slight exciting cause was necessary to produce the condition. The mental anxiety of the patient for the welfare of her grand-daughter's arm furnished this exciting cause.

T. W. BISHOP.

THE DETERMINATION OF THE AGE OF HEMORRHAGIC EXTRAVASATIONS IN THE BRAIN.—Dr. Herm Dürck has made experiments on rabbits and guinea-pigs to study the metamorphosis of hemorrhagic extravasations. He reports the results in *Münch Med. Wochensch.* (No. 36, 1892). After trephining and incision of the dura a Daviel spoon was thrust into the brain one or more times. The animals lived from 1 to 72 days. The seat of injury was then examined microscopically and chemically. It was found that the blood corpuscles became swollen and pale by the second day and began to shrink on the fifth day. After the third, a number, comparatively small, of the red corpuscles becomes included in contractile cells and are metamorphosed by the eighth or tenth day, into angular shining bodies, which by the eighteenth day could not be distinguished from true intracellular pigment granules. After the sixth day, the hæmoglobin penetrates the surrounding tissue, stains it brown and is converted into hæmosiderin; at first this is found diffused through the tissues, but later only in the contractile cells.

The corpuscles are then also found as particles of hæmosiderin. The pigment is at first coarsely granular; it disintegrates from the 18th to the 25th day. After the 25th day, the coloring matter again undergoes chemical change; by the 45th day, the iron of the pigment is precipitated and hæmatoidin is found; most of the granules lie free in the tissues. At the same time, crystals of pigment may be formed from previously amorphous pigment. Hæmosiderin, a transition stage in the metamorphosis of the blood pigment, allows us to form an opinion in regard to the age of the hæmorrhagic extravasation. (*Neurolog. Centralbl.*, No. 6, 1894.)

G. J. KAUMHEIMER.

SENSORY APHASIA, WORD DEAFNESS, WORD BLINDNESS AND AGRAPHIA.—Tompkins reports the case of a man aged 40, who had had a slight tendency to hæmophilia from youth. He had suffered much mental anxiety and business worry. While conversing quietly suddenly became unable to recollect words, felt bewildered and somewhat faint. Patient was unable to converse, using wrong words and frequently syllabic sounds, not real words. Had some pain in left temple, vomited twice, had free evacuation of the bowels, passed urine copiously. Following day was drowsy most of the time, occasionally excitable and irritable, complained of pain in left occipital region. Next day could not understand anything said to him without pantomime. When told to put out his tongue would offer his hand; could not write from dictation and when told to write, wrote words most letters of which were intelligible, but which were simply jargon in themselves. Ophthalmoscopic examination showed both discs slightly too red, vessels distended and edges of discs distinctly blurred. Word blindness present; could not name a child nor recognize the picture of a fowl or donkey. Biniodide, which he had been taking, was stopped and he was given iodide of potassium in five grain doses. During the following month he steadily improved; during the next month was able to write a short letter, the whole worded correctly, punctuated and spelled. Complained of crashing noise in his head. Two hours after writing the letter, had a violent convulsive attack, falling unconscious; lasted about 36 hours. Finally regained his speech to a greater extent than before the attack. Eight days later suddenly pressed his hand over the region of the left kidney with a cry of acute pain, convulsions followed and lasted more or less all night, remained comatose till death, two days later. The author thinks the symptoms due to hæmorrhage from or about the posterior terminal branches

of the middle cerebral artery, supplying the superior temporo-sphenoidal and superior marginal convolutions. (*Brit. Med. Jour.*, April 28, 1894.)

B. M. CAPLES.

A CASE OF CORTICAL BLINDNESS.—Since Förster has shown that bilateral homonymous hemianopsia is not always accompanied by total blindness, but that the central visual field may be intact to a certain extent, four new cases have been reported in which this occurred. Magnus now adds a fifth. The patient was a man of 52, who at the age of 39, was seized with left hemiparesis and left homonymous hemiopia. The hemiparesis soon disappeared; the visual trouble remained. Ten years later, he became suddenly unconscious, but soon recovered. While walking on the street, three years later, he became again unconscious and on awakening claimed to be absolutely blind. He soon found, however, that he could see under certain favoring conditions. There was no paralysis, but a very decided loss of memory for recent events. A small central portion of each visual field was found intact in each eye. Visual tests were made with difficulty, owing to the apparent total inability to fix the objects. For the same reason perimetric measurements were impossible. He was not even able to follow the motion of his own fingers with his eyes. The best central vision was Sn. III. in the right eye. The patient seemed to have absolutely lost all topographical memory. He could not get from his bed to a couch in his room, which he had occupied for years, without aid, nor could he tell how many windows or doors his room had. Neither could he describe paths he had walked daily for years. Optic memory was good at the time of examination, three weeks after the attack. Recognition of objects, color sense, pupillary reactions, writing from dictation, etc., were normal. The fundus oculi was not changed. His abstract memory, as of the rules of games, etc., was good. Eleven weeks after the attack, his physician reported the vision to be, R. $\frac{1}{2}$, L. $\frac{1}{2}$, myopia $\frac{1}{4}$ in each eye. His disposition had become lacrymose and melancholy, and he had lost his interest, formerly active, for public affairs. His topographical memory was still lost. Magnus locates the lesion, at least that causing the second hemianopsia, in the cortex owing to the absence of paralysis, the intact condition of the pupils and the mental disturbance. In the cases previously reported, two were accompanied by pronounced loss of topographic sense (Förster, Groenouw) while the other two (Schmidt-Rimpler, Vorster) it is highly probable that it was diminished. In Schweigger's case, it was intact. Magnus rejects Groenouw's

theory that this loss of topographic sense is due to the loss of the optic memory pictures, because if this were true. the patient would soon (in his case in eleven weeks) accumulate new optic impressions in sufficient quantity to compensate the loss. This, however, has not been the case. He believes that this sense is the product of a number of factors, such as the relative motion and position of the head and neck, movements of the eye and its muscles, and the muscular sensations resulting from all these, play a part, together with the retinal impressions. It is the result of the associative combination of these various impressions and of various centers. He is not able to offer any reasonable explanation of the way in which this association is abolished. (*Deutsch. Med. Wochenschr.*, No. 4, 1894.)

G. J. KAUMHEIMER.

CEREBELLAR LESION AND DEGENERATION OF THE SPINAL CORD.—Dr. Alfred W. Campbell records in the January number of the *Liverpool Medical Journal*, a case of thrombosis in left inferior cerebellar artery. Woman, 62 years old suddenly became dizzy and fell; no apparent loss of consciousness, but weakness of limbs, especially of left side; in three days left side became paralyzed and she talked foolishly, a maniacal condition ensued, but mental symptoms soon disappeared and power in legs gradually returned. Six months from first attack had a second, became depressed and grew progressively worse until death. Necropsy showed cerebral vessels atheromatous on inferior surface of cerebellum; on left side an old sclerosed area where substance of the organ was destroyed to the depth of a quarter of an inch; spinal cord appeared healthy, but microscopical examination of hardened specimens revealed patches of degenerated fibres in the sacral cord, in the position of the direct cerebellar or crossed pyramidal tract of the left side. Higher up the cord the direct pyramidal tract was found extensively diseased and the crossed pyramidal slightly so. Dr. Campbell believes the case proves the existence of downward conducting paths from the cerebellum in the cord.

T. W. BISHOP.

THE PATHOLOGICAL ANATOMY OF MULTIPLE SCLEROSIS.—Dr. Edward Wyllys Taylor, assistant in Dr. Oppenheim's laboratory in Berlin, gives the results of microscopical researches in three cases of multiple sclerosis, and concludes: 1. That the white and gray matter are affected indifferently. 2. That there is no seat of predilection in the central nervous system for the extension of the sclerosis. 3. That neither the cor-

tex of the cerebrum, nor the cerebellum, remain unaffected. Most authorities agree that the cranial nerves are included in the sclerotic process. According to Charcot, only the optic, olfactory and trigeminus are affected. Taylor found all except the olfactory (which was not examined) diseased in two of the cases. In the third case, the degeneration was not well defined, but the roots of most of the cranial nerves were affected. The optic chiasm was the seat of sclerotic patches. In two cases the process was so far advanced that almost no medullary fibres could be seen. Taylor also observed a well-marked degeneration of fibres of the cauda equina; a degeneration of the ganglion cells, but only in an advanced state of the sclerotic process, and not, as Gowers states, immediately after the anterior horns are affected. This explains why reaction of degeneration and muscular atrophy seldom occur. Taylor does not regard diseased vessels as the basis of the sclerotic process, because (1) the sclerotic patches are not always found near vessels; (2) the vessels often do not show any great change in well degenerated areas; (3) diseased vessels were not found in one case. (*Deutsch. Zeitschr. für Nervenheilkunde*, Vol. V., No. 1, 1894.)

R. W. ROHRDANZ.

PATHOLOGICAL ANATOMY OF ACUTE ANTERIOR POLIOMYELITIS.—Dr. Emil Redlich demonstrated before the Vienna Medical Club, a preparation of the spinal cord of a five months child, who died of acute anterior poliomyelitis. There were myelitic changes of the anterior horns with slight changes of other parts, following the distribution of the vessels. The medulla and cerebrum also presented circumscribed, smaller affected areas. Some peripheral nerves were much changed; the phrenic showed a well marked, degenerative neuritis. This case confirms the opinion that poliomyelitis is due to a toxine, probably of bacterial origin, which circulates in the blood and causes the changes in the anterior horns, and sometimes produces inflammatory changes in other parts of the central nervous system and probably also in the peripheral nerves. (*Wien. Med. Presse*, No. 9, 1894.)

R. W. ROHRDANZ.

ACUTE ASCENDING PARALYSIS.—Prof. Jolly concludes: 1. That the majority of cases of this disease are due to polyneuritis. 2. That it may be caused by acute myelitic or metencephalic focal lesions, or by combinations of these with neuritis. 3. It is probable that the exciting cause may leave no demonstrable change in the nervous system. (*Berlin Klin. Wochenschr.*, No. 12, 1894.)

G. J. KAUMHEIMER.

PSEUDO-BULBAR PARALYSIS OF CEREBRAL ORIGIN.—Dr. Leopold Galavielle has published a thesis on this subject. (Montpelier, 1893.) He reports a case in which the lesions found were arterio-sclerosis of the cerebral arteries and foci of softening in the anterior outer part of the lenticular nucleus and in certain fasciculi between the internal capsule and the lateral ventricle, on the right side, and in the anterior segment of the internal capsule, candate and lenticular nucleus and the posterior outer part of the thalamus on the left side. He reaches the following conclusions: The symptoms of glosso-labial paralysis may set in without the occurrence of any lesion of the brain trunk. There is a form of this disease which involves the larynx in addition to the lips and tongue, which is not so very rare, and it is probable that laryngoscopic examination would have shown changes in the vocal cords in a number of the cases previously reported. One of the main points of difference between this form and Duchenne's disease, is the absence of atrophy in the paralyzed muscles. At the autopsy of the subjects of pseudo-bulbar paralysis, we usually find bilateral lesions in the lenticular nuclei, especially in their external portions, or in the cortex of the lower part of the ascending and the foot of the third frontal convolution. More rarely do we find one-sided lesions of the cortex or basal ganglia, although disease of both these parts has been observed. A cerebellar origin of the symptoms can be admitted conditionally. There is a cortical larynx-center analogous to that for the upper and lower facial and hypoglossal regions. The fibers descending from this center occupy the outer part of the knee of the internal capsule, independently, from the hypoglossal and aphasia fibers. The expectation is justified that a cortical analogue exists for all bulbar centers. (*Neurolog. Centralblatt*, No. 1, 1894.)

G. J. KAUMHEIMER.

ON THE COMBINATION OF SPINA BIFIDA OCCULTA WITH HYPERTRICHOSIS LUMBALIS.—Dr. Jens Schou reports an additional case of this deformity. The patient, a girl of 13, showed brown pigmentation of the skin between the 12th dorsal spine and the coccyx, and the anterior spines of the ilium on each side. At the sacro-lumbar junction a hairy spot as large as the palm of the hand was found. The hair was dense enough to hide the skin and 3 cm. long. In the midst of this is a gap in the spinal arch, admitting the tips of three fingers. A half-brother (same father, the mothers were sisters) has a congenital luxation of the hip. Joachimsthal has published, in 1891, a review of all the known cases, seven

in number. As three of these were associated with other deformities, Schou believes a family disposition is at fault in these cases. (*Berlin Klin. Wochenschr.*, No. 5, 1894.)

G. J. KAUMHEIMER.

GASTRIC CRISES.—Cathelineau has thoroughly investigated the gastric chemistry and the condition of the urine in a case of tabes dorsalis. A man, aged 33, had a chancre on his arm eleven years ago after vaccination. Three months later a roseola appeared. He was thoroughly treated from the beginning. Two years afterwards he lost consciousness, and this was followed by aphasia. Seven years later he had gastric crises, vertigo, lightning pains, and a year afterwards his sight became involved and he had diplopia. He was admitted with vomiting. He also suffered from involuntary micturition, and the knee-jerks were absent. There was slight hyperæsthesia in parts, but no anæsthesia. There was ptosis on the left side. When readmitted nine months later, he showed a total paralysis of the left third nerve. There was no ataxia. Gastric crises occurred several times in the month. He also had laryngeal crises. The urine was normal in amount except when there was vomiting. It was always alkaline in reaction. The urea and phosphoric acid followed similar curves to that of the quantity. The chlorides were very considerably diminished during the crises, reaching a minimum a few days after it. There was no albuminuria, peptonuria, or bile constituents present. The vomit varied from 800 to 2,600 c. c. in amount, in the twenty-four hours. Gunzburg's test always gave positive results, as also did the biuret test. After a test breakfast, erythrodextrin and peptones were present, as also free hydrochloric acid. Examined by Hayem and Winter's method, it showed the existence of quantitative hyperpepsia with acid fermentation. During the gastric crises the results were not so uniform. There was always acid fermentation and free hydrochloric acid present. (*Brit. Med. Jour.*, April 28, 1894.)

B. M. CAPLES.

RETURN OF KNEE-JERK IN TABES DORSALIS.—It is generally believed that when the gray degeneration of the posterior columns extends to the lumbar cord, the patellar reflex never returns, even though the lateral columns are also sclerosed. Dr. Kramer has recently seen three cases of marked progressive paralysis, complicated by tabes, in which the patellar reflex had been absent for years and returned immediately after a paralytic attack of epileptic or apoplectic nature, or

spontaneously, to either disappear again or continue until death. In the two fatal cases, no pathologico-anatomical basis was found for this peculiar manifestation. Dr. Kramer's explanation is that, with the lessened muscular tone, the few intact fibers of the posterior columns were insufficient to bring about a reflex, but when the tone of the necessary muscles was increased by the paralytic attacks, these fibers were able, upon tapping of the patellar tendon, to excite the anterior horns sufficiently to produce a reflex. For the return of reflexes without such cerebral influences, no explanation can be given. (*Wien. Med. Presse*, No. 11, 1894.)

R. W. ROHRDANZ.

PATHOGENESIS OF LOCOMOTOR ATAXIA.—Obersteiner reports the results of examinations made with Dr. Redlich of the posterior spinal nerve roots of normal and tabetic cords. Normally the posterior roots, as they pass through the pia mater and cortical layer of the cord, are closely engirded by these structures and are also in close contact with one or more pial vessels. In the tabetic cord, a meningitic process was found in the engirded sites, and the pia was shrunk, causing a compression of the nerve roots. Often the pial vessels were thickened and sclerosed. In consequence of the compression the root fibres degenerate towards the cord. These conditions clear up the well known relation of lues to tabes, for in those cases in which a preceding lues was indisputable, the meningeal proliferation was merely an evidence of the well known tendency of syphilis to cause connective tissue sclerosis. The prevalence of diseased vessels in syphilis is another convincing factor. Any other morbid process, which causes arterio-sclerosis and meningeal proliferation, can cause tabes. Antisyphilitic treatment is of value in recent cases; suspension and elongation of nerves may temporarily improve certain symptoms. (*Wien. Med. Presse*, No. 9, 1894.)

R. W. ROHRDANZ.

PERIPHERAL ORIGIN OF TABES.—Leyden, in an address before the Berlin Psychiatric and Neurological Society, gives an extended historical review of the changes in our views, regarding the pathology of this disease. He concludes that the preponderance of evidence today supports the view that the process consists of a degeneration extending into the posterior columns from the posterior roots. Whether this degeneration arises in the roots or extends into them from the peripheral nerve trunks, is still undecided. It is probable

that a lesion of the peripheral nerves is frequently the starting point of tabes, which must be looked upon as a secondary process. The cause of the extension of this neuritis upward into the cord is still unknown. (*Neurolog. Centralbl.*, No. 1, 1894.)

G. J. KAUMHEIMER.

THE RELATIONS BETWEEN LEPROSY AND SYRINGOMYELIA.—Prof. E. v. Düring, of the Ecole Impériale de Médecine, of Constantinople, agrees with Zambaco in his claims that the cases which have been reported as syringomyelia and *maladie de Morvan*, are for the greater part, cases of leprosy. He states that for those who live in countries in which leprosy is endemic and see the great variety of forms in which the disease may present itself, it is easy to excuse the error. He relates the case of the patient Marés, whose history was first published by Monod as a case of Morvan's disease. Later, Broca again published the history as that of a typical case. Still later Charcot used him for eleven months to demonstrate the symptoms of Morvan's disease, until later symptoms caused him to adopt the theory that this malady was but a type of syringomyelia. After this, Déjerine and Gombault confirmed the diagnosis. Later the patient was presented to a committee of the leading dermatologists of Paris by Zambaco, and they unanimously declared it a case of leprosy by the symptoms present, without a knowledge of his name or his wanderings from one neurologist to another. Düring states that since then Pitres, Chauffart, Debove, Raymond, Quinquad and Besier have published statements that they have found that patients whose trouble had been diagnosed as syringomyelia or Morvan's disease were really lepers. He then points out that most of the differential-diagnostic points, as stated by authors who have had no experience with leprosy, are valueless. Since Zambaco has demonstrated the existence of leprosy in Brittany and others have discovered it in the eastern provinces of Germany, the fact that the patient had not been exposed to leprosy, proves nothing. A "nervous" form of leprosy hardly exists, almost all cases present some nervous symptoms. "Symptoms which clinically resemble the entire scale of affections described as erythromelalgia, arteriospasm, akroparasthesia, akromegaly, myxœdema, sclerema, and especially Raynaud's disease, are very common." It must not, however, be supposed that these are all of peripheral origin. He presents the following conclusions: 1. Individuals, who have been described as presenting typical cases of syringomyelia and Morvan's disease, have been proven later to be lepers. We must consequently con-

clude that there is a disease depending on leprous infiltration, which presents the symptoms of the diseases mentioned. 2. As leprosy has been proven to have survived in France, and is, wherever known, increasing, the fact that the patient has never been exposed to leprosy is of no diagnostic value. 3. As the detection of the leprosy bacillus is often possible only late and often impossible in undoubted cases, the failure to find the bacillus is not of value as a point in differential diagnosis. 4. The assumption that the nervous symptoms of leprosy are of purely peripheral origin is unfounded and opposed to clinical observation. The latter invariably leads to the conclusion that many of these symptoms are due to central lesions. (*Deutsch. Med. Wochens.*, No. 6, 1894.)

G. J. KAUMHEIMER.

A CASE OF SYRINGOMYELIA WITH CUTANEOUS AND MUCOUS SYMPTOMS.—Dr. J. Neuberger reports the case of a man, aged 43, who presented the following symptoms of apparently malignant syphilis: Anaemia, prominent and painful frontal tubercles, painful periosteal swelling of the tibial crests, numerous dollar-sized ulcers and brownish pigmented scars distributed irregularly over the body. Patient, who is married and has three healthy children, denies sexual infection, but claims to have acquired an ulcer on the dorsal surface of the penis by exchanging shirts, in 1886. A few months after disappearance of this ulcer, a pustular and very painful eruption appeared on the tongue; the latter became much swollen and interfered with respiration and mastication. This peculiar affection recurred at irregular intervals, although an active, antisiphilitic treatment was instituted. The pharynx was affected similarly at times, causing dyspnoea and asphyxia. No history of fever. Under large doses of potassium iodide, the ulcers rapidly healed and the general health improved. During the past year the ulcerated condition of the tongue recurred at frequent and almost regular intervals. Death occurred suddenly from asphyxia. Just before death, a neurological examination revealed total analgesia of various parts of the body, with tactile and thermal sensibility intact. This disturbance of sensation (no careful examination as to thermo-anæsthesia was made) together with enlargement of the terminal phalanges of both hands, a peculiar cyanotic discoloration of both calves, also a marked hyperidrosis of the face, led the writer to suspect syringomyelia. Autopsy showed such a condition. In the cervical and dorsal cord, the central canal was dilated with a cleft extending into the right posterior horn. Death was probably due to an eruption of numerous vesicles with consecutive oedema of the vocal chords. There

being no clear history of syphilis, it is not altogether improbable that all the symptoms were due to syringomyelia. (*Wien. Med. Presse*, No. 12, 1894.)

R. W. ROHRDANZ.

A CASE OF SYRINGOMYELIA OF THE TYPE OF MORVAN'S DISEASE.—Dr. Singer related the following case before the Vienna Medical Club. Patient, male, aged 34, eight years ago had abnormal sensations in the hand; blisters formed, burst, and gave rise to a long continued ulcerating process. A necrotic end-phalanx was removed without any pain. At present a moderate atrophy of shoulder muscles is apparent, and the left forearm and wrist appear larger than the right. The skin of this area is thickened and the fingers are oedematous. No disturbance in cranial nerve area. Pupils are equal and react promptly; no bulbar symptoms. Tendon reflexes of left arm normal, and of right somewhat increased; patellar reflexes exaggerated; Romberg's symptom absent; gait normal. Thermic sensibility lost in some parts and perverted in others, the zone embracing the left upper extremity and a part of the buttocks up to a line extending from the middle of the sternum to the spinous process of the fourth dorsal vertebra. Singer thinks there is a cavity in the lower cervical and upper dorsal cord; that the posterior horns are unaffected, but that the anterior horns are pressed upon by a glioma; that the exaggerated patellar reflexes indicate a secondary degeneration of the lateral columns. (*Wien. Med. Blätter*, No. 16, 1894.)

R. W. ROHRDANZ.

MESONEURITIS NODULOSA.—Dr. C. Van Lair concludes (*Arch. de Neur.*, Feb., 1894), that accidental mesoneural hyperplasia shows itself in two forms: The nodulous form and the lamellous form. The nodules are the result of an endogenous hyperplasia of the primitive mesoneural apparatus. In the second type the nodules are replaced by patches. These proceed from the perineurium. Mechanical irritation is the chief cause of these changes.

J. G. KIERNAN.

SCORBUTIC PSEUDO-PARALYSIS.—In a discussion on scurvy, at a recent meeting of New York Academy of Medicine, Dr. Taylor mentioned the case of a girl, 11 months old, who had been fed exclusively on one brand of condensed milk and at seven months could not sit up as before, had a peculiarly bent attitude, indisposition or inability to use the legs, and later

the trunk. There was a tender swelling on right thigh, which disappeared in a few weeks; spongy and bleeding gums; slight rash over entire body; swelling above the right ankle. The baby lost flesh and appetite, slept badly, became peevish, and excessively sensitive to slightest touch. Face was anxious, breath fetid. There was motion at the joints; knee reflex normal. Spine was rigid and somewhat bent, with projection at the first and second lumbar vertebræ. No symptoms of rickets. Diet of cow's milk, raw meat juice and orange quickly removed all the symptoms. (*Med. Record*, March 3, 1894.)

R. W. ROHRDANZ.

SYMPTOMATOLOGY AND DIFFERENTIAL DIAGNOSIS OF ARSENICAL PARALYSIS.—Dr. Frank Müller has observed 72 cases of arsenical paralysis, in 58 of which he made a diagnosis notwithstanding that the patients either were ignorant of or denied arsenic poisoning. In acute and subacute poisoning, the very painful choleriform stage, if not fatal, is followed by a cure in 14 days, or often after a short period of relative convalescence, by the invasive stage of paralysis. The first indication of the latter is paræsthesia, hyperæsthesia, especially to thermic excitation, severe pain, and anæsthesia dolorosa of the ends of the extremities. The anæsthesia and hyperæsthesia are most distinct on the volar surfaces of the hand, showing a predilection for the terminal branches of the median nerve. Pressure sensibility of the calf and peroneal muscles is abnormally increased. Patellar reflexes are lost early, and motor disturbances in the form of tetra-ataxia, followed by severe atrophic tetraplegia, set in. The bilateral, symmetrical paralysis is always first apparent in the extensor hallucis longus and the internal and external interossei of the feet, which are invariably affected more intensely and extensively than the hands, in which the radial nerve area is never first affected. This selective paralysis shows no tendency to spread to the proximal part of the extremities, excepting the crural area, or to become centripetal. Marked hyperidrosis of the feet and hands, vaso-motor, (red spots on toes and fingers), and trophic skin and nail disturbances complete the clinical picture. The urine often contains arsenic in the early stage; elimination is frequently intermittent.

Differential diagnosis: Posterior diphtheritic paralysis is painless, accompanied by dysphagia and often bilateral accommodation paresis. Lead poisoning is a bilateral, exclusively motor, degenerative, radialis paralysis. Alcoholic neuritis is painful but distinguishable by the early, severe involvement of the tibiales antici (foot-drop), the extensors

carpi radialis longus and brevis and the ulnaris externus (wrist-drop); by the normal flexors and interossei of the hand and by the alcoholic stigmata. Rheumatic neuritis is distinguishable by the absence of the initial, painful choleriform stage, by the presence of fever and the spreading of the paralysis to the proximal parts of the extremities, to the trunk, and often to the bulbar and cranial nerves. (*Wien. Med. Presse*, No. 15-16, 1894.).

R. W. ROHRDANZ.

POLYNEURITIS MERCURIALIS.—Dr. R. v. Engel publishes a case of this important but rare affection to which Leyden recently called attention. Patient, female, aged 29, had syphilitic ulcer of the tonsils and was treated by inunctions, 20 grammes being used in three weeks. This treatment was followed by severe motor disturbances of the lower, and milder disturbances of the upper extremities; abducens paresis; severe disturbances of the sense of touch and temperature, limited to the ends of the extremities; rapid loss of reflexes with marked ataxia. All the symptoms pointed to a peripheral multiple neuritis, excepting the absence of pain on pressure. Urine contained albumen, showing an intoxication. Under the supposition that the nervous symptoms were due to syphilis, the inunctions were continued two weeks longer. The abducens paresis improved but the other symptoms remained unaltered. Baths, faradization and massage were followed by prompt improvement and almost complete recovery, two months later. (*Prag. Med. Wochenschr.*, No. 6-7, 1894.)

R. W. ROHRDANZ.

DIPHThERIAL PARALYSIS:—ALLOCHEIRIA.—Dr. Wm. Gay, *The Lancet*, records a case occurring in a girl of thirteen years, who was convalescing from pharyngeal diphtheria. Fluids were regurgitated through the nose; voice reduced to a falsetto whisper; a feeling of lassitude; considerable ataxia of all four extremities; no knee, wrist, triceps, or jaw jerk; anosmia; accommodation defective; pupils dilated; muscular sense deficient; slight touches were not felt at all, but firmer ones were referred to exactly corresponding points on the opposite side of the trunk and limbs; no paræsthesia or polyæsthesia. The following is Dr. Gay's pathological theory. All cases of allocheiria which he was able to find recorded, with the exception of one occurring in the course of hysteria, were accompanied by considerable ataxia and profound disturbance of common sensation. The conjunction of these

symptoms indicates a lesion of the postero-median columns implicating the non-decussating fibers and the decussating fibers proceeding from the posterior commissure and neck of posterior cornu. In none of the cases was there an interference in the condition of stimuli relating to discrimination of heat from cold, demonstrating probably the integrity of the non-decussating fibers of the antero-lateral tract. Thus the common sensory stimuli finding their usual channel closed against them are conducted upward by these non-decussating fibers and so reach the brain on the same side instead of the opposite one; subjectively, therefore, they are referred to a corresponding area on the opposite side of the body to that from which the excitation proceeds.

T. W. BISHOP.

SOME VARIETIES OF PARALYSIS IN CHILDREN.—Dr. James Taylor (*Lancet*, Sept., '93), presents an interesting treatise on paralysis in children, discussing three varieties: 1. Infantile paralysis (acute anterior poliomyelitis) being most common in children under three years, and occurring most frequently in the hot months, the onset in majority of cases being period of feverishness and general malaise, often attended with convulsions; a certain group of these cases is accompanied by severe pain in the affected limb, probably due, as Gowers believes, to a condition of nerve inflammation, occurring simultaneously with the anterior horn change and both processes may be conditioned by a blood state possibly depending upon infection. 2. Infantile hemiplegia characteristic of the first few years of life; onset sudden, ushered in by convulsions affecting the side which is afterward paralyzed; also great disturbance with unconsciousness, high fever, etc., this affection being a frequent sequence of some acute illness, especially scarlet fever. When the acuteness of the process has passed off, the hemiplegia is of the usual cerebral type; if aphasia occurs, is rarely, if ever, persistent; if the paralysis is right-sided and occurs in children before they are able to speak, the acquisition of speech is delayed. One of the features is the presence, in a large proportion of cases, of athetosis; this persists during the life of the patient; fits are very common in this affection, scarcely distinguishable from those of idiopathic epilepsy, except their limitation to one side. This condition depends upon damage to the brain according to Strümpell, being the result of inflammation of the cortex, a polioencephalitis, analogous to that in the grey matter of the cord; according to Gowers, being the result of some vascular change, either an arterial or venous thrombosis. Treatment—calomel for purgation, bromides for con-

vulsions, light diet, ice bag to relieve pain. 3. Cerebral spastic paralysis. This variety, though present from birth, is often not quite clear until some time after. This form of paralysis is the result of meningeal hemorrhage and consequent injury of the cortex and degeneration of the pyramidal tracts of the cord, the hemorrhage having taken place during birth, in long or difficult labors, the distribution of paralysis depending upon the site of the hemorrhage. The differential diagnosis of the last two conditions is important. In the spinal paralysis of children, the paralyzed limbs are cold, blue and flaccid and have lost reflex action; mental condition clear and unimpaired. In the cerebral condition, on the other hand, the limbs, though not well developed, present no localized wasting and their appearance and temperature are unaltered; in this variety the mental condition is almost invariably altered.

T. W. BISHOP.

CHRONIC NEUROSES OF THE VAGUS.—C. v. Noorden has observed a number of functional disturbances in three separate areas supplied by the vagus, in hysterical females and reports thereon in *Charité-Annalen*, 1893. 1. Pharynx and larynx: hyperæsthesia or anæsthesia, occasionally aphonia, more rarely hyperæsthesia. 2. Stomach: hyperæsthesia, sometimes manifesting itself by pain, at others by frequent vomiting. 3. Heart: slowing and irregularity of the beat. Although the symptoms arising in the stomach, pharynx and larynx are well known and bradycardia has been described, the irregularity of the pulse in this disease has not been mentioned, except in connection with hystero-epileptic spasm. He distinguishes four varieties of arhythmia: 1. An intermission of an entire or half a beat in an otherwise normal pulse. 2. Rapid and sudden change in frequency. 3. Great irregularity in the pulsations. 4. Regular arhythmia, as double or triple pulse. In all the cases the stomach was the main cause of complaint, so that the author concludes, that, in hysterically predisposed persons, organic or functional gastric troubles frequently give rise to functional troubles in other areas supplied by the vagus nerve. (*Neurolog. Centralbl.*, No. 2, 1894.)

G. J. KAUMHEIMER.

MOTOR NEUROSES OF THE SOFT PALATE.—The following are the deductions reached by Rethi in a monograph (*Die Motilitäts-Neurosen des weichen Gaumens*, Wien., Alfred Hölder): 1. Clinical experience shows that the motor disturbances of the velum palati are due to lesions of the vagus. 2. Anatomical

and physiological investigations also demonstrate that the vagus is the exclusive motor nerve of the palate. 3. The motor fibers for the levator palati are contained in the roots of the vagus. The internal branch of the spinal accessory is anatomically and physiologically a part of the vagus. 4. The motor fibers for the levator palati are always contained in the pharyngeal branch of the vagus, and run in the branch arising from the pharyngeal plexus and ascending behind the tonsil. 5. The facial nerve does not participate in the motor innervation of the palate. A double innervation, by the vagus and facial, does not exist. 6. Paralysis of the vagus may be caused by hypertrophic tonsils. 7. Paresis of the velum palati, caused by enlarged cervical glands and hypertrophic tonsils, is more frequent than is commonly assumed. 8. The direction of the uvula is not indicative of the side involved. 9. Degeneration of the azygos uvulæ on one side may be present, causing deviation of the uvula, without nerve lesion. (*Deutsch. Med. Wochenschr.*, No. 3, 1894.)

G. J. KAUMHEIMER.

ISOLATED PARALYSIS OF THE RIGHT SUPRASCAPULAR NERVE.

—Prof. M. Bernhardt reports a case of this kind, and states that only four new cases have been reported since he published a description of his first case in 1886. The patient was a healthy sailor, who applied for treatment of a pain in the right shoulder. The infraspinous fossa of the right scapula seemed empty. He could raise his arm to a horizontal position, but on attempting to bring it into a vertical plane, very great effort of the deltoid and the upper part of the trapezius was observed. The arm was then brought to a vertical position with an audible and visible “jump.” Bernhardt attributes this to the paralysis of the supraspinatus, whose function it is to hold the head of the humerus in the glenoid cavity, and prevent its passive dislocation downward. Outward rotation of the arm was also impaired, by the absence of the infraspinatus. Neither of these muscles reacted to the electric currents. All other muscles were normal. The prime cause of the entire trouble, according to B., is to be found in a neuritis of the suprascapular nerve. (*Berlin Klin. Wochenschr.*, No. 2, 1864.)

G. J. KAUMHEIMER.

SYPHILITIC NEURALGIA.—Obolenski reports the case of intercostal neuralgia in a patient, aged 36, with previous history of syphilis and discusses the etiology of neuralgia. Sometimes the cause may lie in the brain, the cord or its mem-

branes, or in the tissues about the nerves. A neuritis is revealed by reaction of degeneration, trophic changes in the muscle, disturbed sensation, etc. Some neuralgias are of reflex origin but most of them are the so-called rheumatic neuralgias and such as result from nutritional changes, as in the dyscrasia of malaria and syphilis or from changes in the blood-forming organs, as in chlorosis, or such as occur in hysteria and neurasthenia. Malarial neuralgia is often accompanied by fever, shivering, feeling of heat, rise of temperature; it is more distinctly paroxysmal and is not limited to the night. Malarial attacks have usually preceded and patient has lived in a malarial district. Spleen may be enlarged. Change of climate or anti-malarial remedies give good results. Intercostal neuralgia has rarely been attributed to syphilis. In the case sighted by Obolenski, the following points sufficed for the diagnosis: (1) history of syphilis; (2) general enlargement of glands; (3) increase of pain at night; (4) double-sided nature of the lesion; (5) absence of R. D., in spite of the long duration of the disease. The author is of the opinion that the diagnosis can be made even in the absence of the history of syphilis. Prognosis is good as these neuralgias yield to antisiphilitic remedies. The author uses potassic iodide and calomel, the latter in the form of subcutaneous injections. Patient recovered. Thermocautery, warm baths and galvanism were used in addition. The author thinks the good results due to the antisiphilitic treatment. (*British Med. Journal*, April 28, 1894.)

B. M. CAPLES.

THE PHARYNGEAL REFLEX IN THE NORMAL AND THE HYSTERICAL.—August Engelhard (*Inaug-Dissert*, Bonn, 1893), reports that in 200 normal individuals he found the pharyngeal reflex normal in 59 %, diminished in 17 % and absent in 25 %; the palatal reflex was found in 56 %, diminished in 18 % and absent in 26 %. In 10 hysterical cases the pharyngeal reflex was constantly present in 7, in the others it was only obtainable upon strong irritation and then not invariably. As diminution or absence of these reflexes is so frequent in healthy individuals, he agrees with E. Soques that it cannot be regarded as an hysterical stigma. In none of the 10 cases of hysteria, some of them with considerable disturbance of sensation, was contraction of the visual field to be found. (*Neurolog. Centralbl.*, No. 2, 1894.)

G. J. KAUMHEIMER.

SENSORY AND PSYCHICAL EPILEPSY.—Most modern writers upon epilepsy, speak of certain mental disturbances which

may precede, merge into, follow or at times take place of an epileptic convulsion. Nearly all who consider this subject seem to regard the motor convulsions as the most characteristic symptom of an epileptic attack; yet it is well known that an epileptic attack may occur characterized by no motor explosion whatever. The various symptoms of epilepsy, whether motor, sensory or psychical, are due, it is now generally conceded, to sudden discharges of nerve force. This discharge being due to disease of the nerve cells, which discharge; or to inhibitory cells which normally control the discharging cells; or to a combination of both causes. The study of Jacksonian epilepsy shows that the initial movement in a motor convulsion points with great constancy to the cortical motor area for that movement as the seat of greatest irritation. In fits which begin with a psychical or sensory aura, the rapid supervention of unconsciousness and motor manifestations commonly obscure all other phenomena, rendering an investigation of them impossible and the fit is said to be of the ordinary type. Dr. Diller suggests the division of essential epilepsy into motor, sensory and psychical, thus placing us, in his opinion, in a better position to scientifically study this interesting affection. (*N. Y. Med. Jour.*, March, 1894.)

T. W. BISHOP.

NOTES ON 250 CASES OF EPILEPSY.—The following is an outline of Prof. C. L. Dana's 250 cases of Epilepsy, reported by R. K. Macalester in *N. Y. Med. Jour.*, Jan., 1894. Age at application for treatment: first decade, 45; second, 76; third, 60; fourth, 45; above 40 years 24. Causes: Hereditary neuropathic family taint 169 or $30\frac{4}{5}\%$ (Echeverria's per cent. 28; Gowers' 36; Putzel's, 23; Reynold's, 31.) Hereditary neuropathic influence on paternal side, epilepsy in 7, other neurotic and mental affections in 14; in other antecedents, epilepsy in 16; other neurotic and mental diseases in 12. Excesses in 44 cases; alcoholism in 14, in parents 10; excessive smoking alone 2; sexual excesses 9; physical and mental strain 9; infantile convulsions 27. Traumatism, 24; phthisis in parents 17; in patients themselves 3; acute febrile diseases 17; infantile hemiplegia 16; fright and shock 11; birth 10; gastro-intestinal affections 4; exposure to high temperature 4; chorea 3; syphilis 4; pregnancy 2; abortion 1; menopause 3. rhachitis 2; vaccination poisoning 1; bad food 1. Symptomatology:—Aura recorded in 42, though probably present in more. Character of attacks:—Haut mal in 87; mixed form 69; petit mal 34; haut mal with Jacksonian epilepsy 14; rotation epilepsy 2; psychical in 6—total noted 212. Frequency

of attacks:—1 or 2 attacks monthly in 44; irregular or in groups 41; one or more daily 29; 1 or 2 weekly 28; 1 or 2 yearly 25—total noted 167. Time of attacks noted in 126:—diurnal and nocturnal 59; diurnal only, 47; nocturnal 20. Mental condition:—mental disturbance as depression in 36; defective memory, bad temper, etc., in 10; idiotic 5. Stigmata:—Defective development of some part of body, 29.

T. W. BISHOP.

EPILEPTIFORM CONVULSIONS CAUSED BY INTRANASAL LESIONS. Dr. F. Kjelman reports two cases. Case 1, is that of a lad of 12, who had had epileptiform attacks, which had resisted all treatment. A moderate hypertrophy of the nasal mucous membrane was cauterized, when the attacks ceased for eight months, and then recurred after an ordinary "cold in the head." The hypertrophies were again cauterized and the boy has had no more fits for over three years. In Case 2, cauterization of the hypertrophies did not cause cessation of the fits, but they did cease when the patient, a boy of six, was cured of the habit of closing the left nostril during sleep. In this case, difficulty in breathing seemed to be a prodrome of the fit. (*Berlin Klin. Wochensch.*, No. 13, 1894.)

G. J. KAUMHEIMER.

SYPHILITIC EPILEPSY.—Prof. Paul Kowalewsky, of Charkoff, reaches the following conclusions: All cases of syphilitic epilepsy may be classified into congenital and acquired. The congenital syphilitic epilepsy may present two forms, the idiopathic, or general epilepsy, due to a lack of resistance and instability on part of the nervous system, caused by the specific contagion, *epilepsia dyscrasica*; and cortical epilepsy, due to the development of gummous processes on a basis of inherited syphilis. Acquired syphilitic epilepsy also presents the cortical and general forms. The former may be caused by solitary gumma, irregular diffuse gummous processes, or by scars left by the disappearance of these. The generalized convulsions are caused either by the intoxication of the system, either by the specific virus, or by the products of retrograde metamorphosis during the period of active treatment. He relates a case in which the patient secretly took double and triple doses of the medicines prescribed, with the effect of producing convulsions, which disappeared when normal doses were resumed. (*Berlin Klin. Wochenschr.*, No. 4, 1894.)

G. J. KAUMHEIMER.

RECENT LITERATURE ON EPILEPSY.—Seligmüller gives a resume of the most important articles on this topic, which have appeared between 1885 and 1892. A number of them have been abstracted in this journal. The article will be valuable to those of our readers who are investigating this subject, the bibliography comprising 74 references. (*Deutsch. Med. Wochenschr. No. 1-3, 1894.*)

G. J. KAUMHEIMER.

EXOPHTHALMIC GOITRE.—Dr. Pierre Marie (*Le Mercredi Med.*, Feb. 28, 1894) opposes the view urged by Möbius and others, that the thyroid body is the origin of this neurosis; the nervous symptoms being but the secondary phenomena of the thyroid affection. He, on the contrary, claims that while many symptoms may and ought to be attributed to thyroid function disorders without seeing therein the purely thyroid origin of the disorder. He points out in justification of this position that even though myxoedematics treated with thyroid extract become hyperthyroidized, they do not present exophthalmus. Hyperthyroidation alone is hence insufficient to produce the appearance of the symptoms. The failure of thyroid surgical procedures to relieve exophthalmus is also evidence in this direction. The thyroid theory does not accord with the ætiology, taking every thing into consideration. Marie is of opinion that exophthalmic goitre is a neurosis of nervous origin affecting secondarily the thyroid. In his opinion thyroid extract treatment is contra-indicated and exaggerates the symptoms at times. He is inclined to recommend surgery, leaving the special procedure to be suited to the case.

J. G. KIERNAN.

ANOMALIES OF THE INDIRECT ELECTRIC EXCITABILITY IN CHRONIC PLUMBISM.—Prof. M. Bernhardt has attempted to verify the statements of Gumpertz in regard to the changes of electrical excitability in chronic plumbism. (*See this Review, Vol. III, p. 169.*) He found that the loss of the reaction to the positive pole of the opening induction current and the anodal closing contracture in the musculo-spiral nerve, which Gumpertz claims is pathognomic of poisoning by lead, even in the absence of paralysis, is so frequently found in healthy individuals and so often absent in lead poisoning that it has no diagnostic significance whatever. He also quotes Putnam (*Bost. Med. and Surg. Rep.*, Vol. 128, No. 13), who has reached, by the same means, absolutely identical conclusions. (*Berlin Klin. Wochenschr.*, No. 12, 1893.)

G. J. KAUMHEIMER.

A NEW PROOF THAT BERIBERI IS DUE TO CARBONIC POISONING.—Dr. A. S. Ashmead of New York has for 20 years held the opinion that beriberi is due to carbonic poison. He reports the case of a man, aged 27, a native of Bungo, who had beriberi every year for five years, the disease beginning in spring and lasting until fall. In September of the fifth year moxae were applied to each side of the dorsal vertebrae, three on each side. The disease did not return the following year and has not reappeared since 1888. Dr. A. believes that the severe irritation, produced by the moxae, stimulated the respiratory nerves, the pneumogastric and phrenic, which are in a measure paralyzed and numbed in this disease by carbonic poison; this stimulation produced a deeper inspiration and expiration, powers conducive to the introduction of oxygen and expulsion of the poison. Next to the altitudinal treatment, whose good effect can also be best explained by admitting the carbonic origin of the disease, moxae are the most frequently successful. (*Med. Rec.*, April 14, 1894.)

R. W. ROHRDANZ.

TETANUS COMPLICATING VACCINIA.—Toms reports the case of a delicate girl five and a half years of age who had previously had measles, mumps, and strumous keratitis. Bovine virus was used with all possible antiseptic precautions. Eighteenth day child was ill, temperature $100\frac{5}{10}$. Ulcer at site of vaccination deep, slightly indurated, discharging a sanious pus. Appearances improved under treatment. Six days later child had an aphthous stomatitis and while mouth was being examined some trismus was noted; two days later some rigidity of neck muscles and pain in the back; next day slight tonic spasm of the jaws. Later, child was seen in a characteristic paroxysm with opisthotonos. Deep anæsthesia failed to separate the jaws, she died of œdema of the lungs. Bromide and chloral were used along with nutrient enemata containing laudanum. Had eleven convulsions; died 35 days after vaccination; ulcer on arm appeared healthy. The possible sources of infection of the arm were (1) the vaseline, (2) the sponge, and (3) the unsterilized dressings used by the patient's friends. Against the theory that it was due to the vaccination are (1) the presence of the sore mouth, (2) the length of the incubation period if counted from the vaccination and (3) mildness of the disease, death being due to an intercurrent affection in this weakly child which might otherwise have recovered. Billings collects from medical writings six cases of tetanus after vaccination. (*Brit. Med. Journal*, April 28, 1894.)

B. M. CAPLES.

ON THE ACTION OF THE TETANUS VIRUS ON THE NERVOUS SYSTEM.—Brunner presents the following conclusions, together with criticisms of later experiments by others, in which he endeavors to show, that in so far as they reach different conclusions, they are in error. 1. The tetanus poison cannot cause spasm of the muscular fiber. On paralyzing the motor nerve endings by curare, the tetanic spasm ceases. 2. The tetanus virus can cause no spasm in a muscle whose motor nervous connection has been severed from its center. 3. The virus can only cause spasm in any specific nervous area when the center for this territory is intact. Vaillard and Vincent have shown that the spasms disappear in an extremity whose spinal center has been destroyed. (*Deutsch. Med. Wochenschr.*, No. 5, 1894.)

G. J. KAUMHEIMER.

A PECULIAR EXHIBITION OF TREMOR IN DELIRIUM TREMENS.—Ostermayer has observed a case of delirium tremens in which the tremor of the right side of the body was severe and persistent, while that of the other side was scarcely perceptible. Other unilateral symptoms were paresis of the right facialis and the right upper and lower extremities. The writer thinks the unilateral symptoms were due to the disproportionately great development of the muscles of the right side with the corresponding superiority in development and function of the central nerve organs controlling these muscles. This anatomical and functional superiority signifies greater tissue change and absorptive power of the right side, which would, therefore, take up more alcohol and be affected more by the same than the left side. (*Allgemeine Zeitschr. für Psychiatrie*, Vol. 50, No. 3-4, 1894.)

R. W. ROHRDANZ.

NERVOUS SYMPTOMS OF YELLOW FEVER.—In a recent review of 221 cases of yellow fever treated by him during the past summer, Dr. Joaquin de la Pezuela estimates that the various clinical forms of the disease appear in the following order: First the light form, then the hemorrhagic, then the moderately severe, adynamic, then the typhoid, the uræmic, ataxic, the gastric, foudroyante. The ataxic form appeared in 3.16 per cent. of all the cases. In speaking of the ataxic form of the disease, he considers that a sharp distinction should be made between the form of yellow fever presenting cerebral and nervous symptoms which are due to uræmia, and those which are due to absorption of the germ, or the product of the germ of the fever itself. This distinction is

necessary in view of the difference in the methods of treatment of the two conditions. For in those cases of yellow fever accompanied by ataxic symptoms due to uræmia, the action of the kidney should be stimulated, and sufficient amount of urine be produced so that the ataxic symptoms may be relieved. While in those cases in which the cerebral and nervous symptoms depend for their origin upon hyper-intoxication with the germ products of the germ of yellow fever, it is necessary to employ sedatives, stimulants, and remedies which shall act in the direction of a counter action to the cerebral hyper-nutrition, upon which the convulsions and delirium depend. He notes that the specially remarkable symptoms of that form of ataxic yellow fever which is dependent upon the germ infection alone are extreme agitation, tumultuous delirium, subsultus tendinum, complete loss of reason, unilateral or bilateral spasms of great severity; the patient is unable to retain any nourishment, tears the bedding to pieces, and endeavors to escape from all restraint, resisting the effort at care on the part of the attendant; the pulse becomes very frequent, weak and irregular, the tongue is red and dry, although not so much so as in the uræmic form. Incontinence of urine and fæces are marked, but the temperature, although very high, is as a rule of no importance. The urine may be at times abundant and almost always contains a quantity of albumen. Besides these ataxic symptoms the patient also presents the other characteristic symptoms of yellow fever: icterus, gastro-intestinal hemorrhages, gastric intolerance, etc. The prognosis in these cases is extremely grave, and it is only rarely that the ataxic form of the disease ends otherwise than in death. As to the treatment, he has found the best results from the use of large doses of bromides, or of chloral, or of overwhelming doses of morphine given hypodermatically. The utmost rest, quiet, and tranquility of surroundings is demanded, and the hemorrhages, high temperature and weakness are to be combated by the use of ice, and by bathing the skin in cold lotions of alcohol, vinegar and water. He has also seen good results from the hypodermic injections of caffeine, etc. (*El Progreso Medico*, April, 1894.)

H. M. BROWN.

CEREBRAL SIGNS AND SIMULATIONS IN PNEUMONIA.—Dr. J. R. Barnett, in an article on the above subject, states that cerebro-spinal meningitis is often followed by pneumonitis, the specific germ of the former being found in the lungs. The common germ of both is found in the lungs after the previous invasion of the membranes of the brain or spinal cord. The

same mixed infections may be present when these inflammations co-exist, as by any of the pyococci. We now expect that with every epidemic of cerebro-spinal fever, cases of lung complications will occur, prevalent pneumonic fever will have its quota of brain cases. The author states that a co-existence of this disease is not always easily recognized. He gives at length the differential diagnosis. He thinks certain forms of delirium, particularly the violent kind, occurring before the last days of the disease, or the half-stupor which seems to observe without taking cognizance of the sights and sounds of the sick room, afford a strong presumption of brain trouble. Respiration, he thinks, is of great significance, as irregularity, particularly of the Cheyne-Stokes character, and abnormal slowness, or both, point strongly to a crippled medulla. Clonic spasms, early in the sickness, are usually not indicative of nervous lesions. (*Journal of the American Medical Association*, May 26, 1894.)

B. M. CAPLES.

CHOREA, RHEUMATISM, LARGE SUBCUTANEOUS NODULES.—Edward Mackey (*Lancet*, Jan., '94), records a case occurring in a boy of nine years. Initial symptoms: pains in joints, somewhat anæmic; choreic movements of head, arm and tongue; respiration irregular, but lungs normal; systolic bruit in fifth interspace. Special point being large subcutaneous nodules, about 40 in number, 3 on spine of scapula, 8 or 10 on spinous processes, several on iliac crests and on extensor tendons, on patella and dorsum of hands and feet.

Treatment—Arsenic, 4 to 6 mim. doses, and iodide of potassium, 2 grain doses, thrice daily, the above treatment with rest and quiet in bed, produced recovery from this usually considered serious condition.

T. W. BISHOP.

ERYTHROMELALGIA.—Lewin and Benda have published a critical review of all known cases of this disease. They state that it is probably not so rare as has been assumed, as no less than seven cases have lately been reported by Berlin physicians. They have collated 40 cases. Twelve of these they attribute to organic central lesions, owing to the presence of other symptoms on part of the central nervous system; seven are assigned to functional nervous troubles, and the remainder, save one, to local causes. In the latter cases, it seems often to be a neuralgic equivalent, and to be due to a neuritis. In regard to treatment, nothing definite can be stated. Almost every case has been treated differently, but few were relieved

and still fewer cured. Lewin and Benda believe the disease to be a symptom, not a nosological entity; its cause may be either peripheral or central. (*Berlin Klin. Wochenschr.*, No. 3-6, 1894.

G. J. KAUMHEIMER.

THE RESULTS OF CONTUSION AND EXTIRPATION OF THE CÆLIAC GANGLIA.—G. Lewin and Boer report the results of numerous carefully performed experiments upon rabbits. Their conclusions are: 1. The cœliac ganglia are among the most sensitive organs of the entire body. Even slight mechanical irritation will occasion expressions of pain, if anæsthesia be not absolute. 2. The parts remaining after partial extirpation had developed to a considerable extent, so that we may conclude that a compensatory hypertrophy and vicarious action take place. 3. Neither crushing nor extirpation of the ganglia is followed by rapid death. 4. One of the main symptoms resulting from the operation was paresis of the intestine, usually with diarrhœa and pronounced tympanites. Irritation of these ganglia causes renewed movements of the exposed bowel, when they have ceased, after opening the peritoneal cavity. Hence, we may assume with Pflüger that the splanchnic nerve is the inhibitory nerve of the gut and that the cœliac ganglion is the motor center of the intestines. Various methods of examination were employed to examine the intestinal nervous plexuses, but no degenerative changes were found. 5. The cœliac ganglia seem to be most necessary to life, as no other organic changes were found in the animals which died some time after the operation. Those animals in which only one ganglion was removed, survived much longer than those in which both were removed.

Applying the results of these experiments to the symptomatology of Addison's disease, the authors state: 1. The pains which usually occur in Addison's disease in the different regions of the abdomen, may be the result of disease of the cœliac ganglion, as this structure is very sensitive. 2. The intestinal disturbances, usually present, may be due to an affection of these ganglia. 3. No influence on pigmentation has been noted in any of our experiments. 4. Neither have we observed in animals the anorexia so frequently observed in Addison's disease. 5. The lethal termination of this affection may be due to destruction of the cœliac ganglia. 6. No importance can be assigned to the occurrence of acetoneuria, observed in three rabbits, in the production of the symptoms of Addison's disease. (*Deutsch. Med. Wochenschr.*, No. 10, 1894.)

G. J. KAUMHEIMER.

LOCAL ANÆSTHESIA PRODUCED BY INTRACUTANEOUS INJECTIONS.—Dr. Cholewa writes on the above subject, the article being sent to Dr. Casey A. Wood who has it published. The author uses a .2 % solution of common salt in distilled water; the addition of one gram of cocaine to 10,000 or 5,000 grams of this solution facilitates the practical application of the solution without entailing even a shadow of danger. One gram of this solution contains only .0001, that is a tenth of a milligram of cocaine. The maximum dose of cocaine is not reached until 500 grams of this solution have been used. During the operation more than half the fluid employed runs out again or is wiped off. In minor operations he makes use of a solution of $\frac{1}{5000}$ grams and for dressings recommends the employment of a solution from $\frac{1}{1000}$ grams. He advises two solutions to be kept, one of 1 gram of cocaine to 1000 grams of water (solution A) and the second of 2 grams of common salt to 1000 of water (solution B). Parts of solution A are mixed for use with five or ten times as much of fluid B. Both fluids are easily sterilized. The cause of anæsthesia by infiltration, he thinks, has several factors: first, pressure of the injected fluid and the removal of the blood from the infiltrated tissues. Temperature, he thinks, plays a prominent part. If one produces an artificial œdema with other fluids—with or without a little common salt—the whole region will become insensible and will enable one to operate without causing pain. This is briefly the principle of infiltration-anæsthesia. Of 537 operations, the author used chloroform in only 16 instances. (*Journal of American Med. Assn.*, May 26, 1894.)

B. M. CAPLES.

NEUROSES FROM CARDIAC DISEASE.—These vary, according to Potain (*Mercredi Med.*, March 21, 1894), from simple vertigo to systematized neuroses. He finds that mental instability, irritability, suspicion occur as well as true psychosis, hysteria and epilepsy.

J. G. KIERNAN.

AN ATYPICAL NEUROSIS.—Under this title Prof. L. Bauer, of St. Louis, describes a very peculiar case. The patient is a boy of 13, with neuropathic ancestry. Always very sensitive and peculiar, he has in the last three years had periods of maniacal rage, during one of which he attempted to take the life of a playmate. At other times he is quiet and somewhat morose. About three years ago, a severe attack of intense hyperæsthesia of the right foot occurred. This attack, during which the slightest touch was intensely painful,

appeared suddenly, lasted 17 days and then vanished. Six weeks later, the other foot became involved in exactly the same manner and for about the same length of time. Since then, these attacks have been repeated, with greater or less intensity, a number of times. They always set in without warning, lasted from 12 to 26 days and vanished as suddenly as they came. The local temperature was always increased and cold air gave great relief. There was never spontaneous pain. Exceptionally oedema, and twice erythema was noticed. Once a similar hyperaesthesia was noticed in the area of the left spinal accessory nerve. After this disappeared he became totally deaf in both ears and remained so for thirteen months. During this time there were no other local manifestations. The deafness vanished as suddenly as it came. Since then the feet have been attacked twice. After the last attack a feeling of weakness and insecurity in the lower extremities remained. During all this time, the physical condition has been excellent, sleep was not disturbed, the appetite extraordinary, bowels regular and growth unusual. The mental symptoms are still abnormal, although a distinct improvement has been noted. It is obvious that a definite diagnosis cannot be made but the author thinks the trouble resembles erythromelalgia more than it does anything else. (*Berlin Klin. Wochenschr.*, No. 5, 1894.)

G. J. KAUMHEIMER.

HYSTERICAL LOCKJAW.—The minor symptoms of hysteria, such as monoplegias, blepharospasm and the like, do not attract the same attention as the more marked and extensive manifestations of the disease. Dr. Geo. J. Preston records three cases of this variety of hysteria, in each of which occurred rigid contraction of the temporal and masseter muscles. In two of these cases cure was effected by applications of the faradic current, aided by suggestion. (*Jour. Am. Med. Ass'n*, Jan., '94.)

T. W. BISHOP.

HYSTERIA WITH ATTACKS OF PAIN AND CRAMPS IN A TWELVE-YEAR OLD GIRL.—Dr. Mader reports the case of a girl who was subject to attacks of pain in the epigastric region, with cramps of the lower extremities, lasting about half an hour and recurring 7 to 10 times daily. The right hand was always flexed, the left extended with fingers separated; opisthotonos occasionally. During the attacks of pain, the epigastrium was hyperæsthetic; the parts subject to cramps, anæsthetic. The hyperæsthesia was not simulated, because the slightest touch, made while the patient's attention was diverted, was

painful. Intercostal neuralgia being suspected, faradization was resorted to without effect. Cold douches, isolation, with promises of discontinuance of the same and reward, effected a speedy cure. (*Wien. Med. Blaett.*, No. 9, 1894.)

R. W. ROHRDANZ

SOME CAUSES AND CHARACTERISTICS OF NEURASTHENIA.—In hospitals, dispensaries and among the very poor everywhere, a typical case of neurasthenia is difficult to find; but among the well-to-do and intellectual and especially among those in the professions and in the higher walks of business life, this peculiar impoverishment of nerve force, which we call neurasthenia, appears with alarming frequency. The above is Dr. A. D. Rockwell's contention against the theory of Dr. D. G. Brinton that "civilization so far from increasing this class of maladies, is one of the efficient agents in reducing them in number and severity." American nervousness is a distinctive phrase; we hear very little of English, French or German nervousness, while the same general causes underlie each class of cases, yet the writer has thus far failed to detect any widely divergent lines of differentiation between the functional nervous manifestations of the different nationalities; nevertheless it cannot be denied that in America there are climatic conditions and business and social environments to the influence of which the nervous system is peculiarly susceptible. The Englishman is less nervous than his American cousin, not because he is less abstemious in his eating and drinking, but because excesses in certain directions are less harmful in his climate than in ours. Here the race of life is all haste and unrest; it is thus readily seen that the primary cause of the increase of neurasthenia in this country is civilization itself. Another important causative factor is found in the relative dryness of our atmosphere as well as in our extremes of heat and cold. Then again, what is an excess and what a deficiency of natural electricity of the body, has never been demonstrated, but we know that dry prevents the natural electricity of the body from being conducted away; it is therefore rational to believe that a constant excess of electricity in the body may in some cases overstimulate so as to excite a degree of nervousness that amounts to disease. Both brain and muscle when exercised undergo regressive metabolism of tissue of an oxidative character. If the excess has been along the line of mental effort, the brain is suffering from pathological, not normal fatigue, a condition in which the nutrition of the nerve cells is primarily at fault, in other words neurasthenia. (*N. Y. Med. Jour.*, Nov. 18, 1893.)

T. W. BISHOP.

THE NATURE OF SHOCK.—The following is the summing up of Dr. Boise's paper appearing in *N. Y. Jour. Obstet. and Gyn.* Shock is hyper-irritation of the entire sympathetic system, because: 1. The skin is pale and livid by reason of contraction of the arteries, by their vaso-motor nerves. 2. The heart's action is rapid by reason of stimulation of its sympathetic nerve supply. 3. There is scanty secretion of urine by reason of contraction of renal arteries. 4. Skin, though pale and livid, is bathed in perspiration by reason of stimulation of the secretory nerves of the glands. 5. Pupils dilate by reason of stimulation of sympathetic nerve supply. 6. Pulse at wrist soft and compressible. 7. The condition of heart is one of stimulation rather than paresis, as demonstrated by fact that in cases of sudden death from shock, heart has been found contracted and empty. Admitting this pathology, treatment should be sedative to sympathetic system, as by nitrite of amyl, nitroglycerine, morphine, application of moist heat to surface, transfusion of saline solution at comparatively high temperature.

T. W. BISHOP.

BASOPHOBIA.—In the *N. Y. Med. Jour.*, December, is an excerpt from the *Med. Week.*, reporting a case of Prof. Debove's, where there was complete loss of power of walking or standing erect, due to emotional causes, although the strength of the muscles concerned was not appreciably diminished. In the recumbent posture she (woman, 40 years) had no difficulty in going through all voluntary movements. General and special sensibility were intact and there was no impairment of muscular power; knee reflexes absent, but no other symptoms of tabes and no evidence of hysteria; symptoms were somewhat similar to those of agoraphobia, from which they differed in the absence of feeling of anxiety characteristic of the latter, also inability to stand erect was present in a closed room as well as in open spaces. In astasia-abasia there is an absolute impossibility of walking or assuming the erect posture, with no impairment of the muscular power of incoordination of movements and it seems to indicate a loss of memory of how to walk; these patients experience no fear or anxiety on endeavoring to perform the movements of locomotion, hence, no amount of encouragement or assistance will enable them to walk or stand. On the contrary, basophobiacs are perfectly cognizant of the fact that the difficulty they experience in assuming or maintaining the erect posture is due to a feeling of apprehension that they are unable to overcome.

T. W. BISHOP.

THERAPEUTICS.

TREATMENT OF CHOREA BY LARGE DOSES OF QUININE.—Hitherto the drugs exhibited in the treatment of chorea have been of two classes, those whose action is confined to the motor nerve, paralyzants of motor nerves and peripheral filaments, as the bromides, lobelia, conium; and those whose effect is depression of the spinal centers as arsenic, calabar bean, chloral, cimicifuga, and antipyrin, the latter exerting also a peculiar sedative influence on the cerebral cortex. Prof. H. C. Wood advances the theory that chorea is due to a diminution or loss of spinal inhibition and Drs. Dorland and Potts in the *Journal of the American Med. Ass'n*, accepting the rationale of this theory, have treated many cases of chorea with quinine, seldom failing to get excellent results.

T. W. BISHOP.

NEURITIS SUPERVENING IN TREATMENT OF CHOREA BY ARSENIC.—The possibility of the occurrence of peripheral neuritis without any of the cardinal symptoms of arsenical poisoning, is well illustrated in a case reported by J. A. Adams, *Lancet*, Feb. '94, in which 10 minim doses of liquor arsenicalis were administered three times a day to a girl of eleven years. The neuritis occurred after three weeks' treatment but was soon recovered from by proper dieting, codliver oil, tinct. nux vomica, massage and faradism.

T. W. BISHOP.

CLINICAL EFFECTS OF HYOSCINE HYDROBROMIDE.—An excerpt from Gordon Sharp's article in the *Practitioner*, Jan., 1894, appears in *N. Y. Med. Journ.* according to which Sharp found the hyoscine hypodermically in delirium tremens to reduce the large movements to constant jerking of the extremities; in another case was convinced that death was hastened by the great stimulation of the circulation and respiratory center. In a case of anæmia, where everything had been given to correct the headache and sleeplessness, hyoscine produced delirium, convulsive jerking of the limbs, extreme dryness of throat and no hypnotic effect. Hyoscine by this author is considered in its action as very similar to atropine and not to be recommended as a safe hypnotic.

T. W. BISHOP.

DUBOISIN SULPHATE.—Dr. Ladislaus v. Henyey has used 702 injections of this drug in 74 cases. Only 22 injections or 3.1 % were ineffective; in 37.6 % a sedative and in 59.2 % a hypnotic effect was obtained. The dose varied from $\frac{1}{80}$ gr. to $\frac{1}{30}$ gr.; in 40.3 % of the injections followed by sleep, only $\frac{1}{80}$ gr. to $\frac{1}{60}$ gr. were used. The therapeutic effect was noticed within 20 minutes in 60.8 %; between 20 and 30 minutes in 24 %. The sedative effect lasted longer than the hypnotic; in some cases 2 or 3 days. Especially favorable results were obtained in the excitement of melancholia due to excessive increase of precordial anxiety, and in the sudden paroxysms of anger in paralytic and postepileptic delirium. Respiration and pulse were not unduly influenced. A few were nauseated; none experienced vomiting. Mydriasis and disturbance of vision occurred frequently, but were not constant. Hallucinations and delirium did not occur. Toxic effects were seen in one case after an injection of $\frac{1}{80}$ gr. The writer considers duboisin a more promptly acting sedative and hypnotic than most similar remedies now used. Morphine and codeine are less prompt, continuous and reliable, while hyoscyamine and hyoscine are more vehement in their action. Duboisin can be used in diseases of the heart and vessels, is not dangerous to life if carefully used and can be discontinued suddenly without pernicious reaction. (*Wien. Med. Presse*, No. 7 and 8, 1894.)

R. W. ROHRDANZ.

ERGOT IN THE TREATMENT OF PERIODICAL NEURALGIAS.—Dr. W. H. Thomson has for many years relied upon ergot in the treatment of migraine and was led by the results to try it in periodical neuralgias. He records 4 cases in which large doses of quinine, arsenic, bromides, chloral, morphine, exalgine and antipyrine had been used without effect. A teaspoonful of fluid extract of ergot combined with the same amount of elixir cinchonæ, given every 2 hours, gave prompt relief. If the ergot is vomited, it should be given by enema. (*Med. Rec.*, March 17, 1894.)

R. W. ROHRDANZ.

ERGOT IN MIGRAINE.—Thomson recommends ergot in migraine. He administers a drachm of the fluid extract with an equal quantity of elixir of cinchona. As soon as the premonitory symptoms of headache are noticed, patient is advised to lie down and remain quiet, dose is repeated one hour later if headache still persists, third dose given one hour later if necessary. If either of the doses be vomited a similar quantity is given per rectum. He states that in several cases of

long standing, in which other remedies had failed, ergot gave prompt relief. The good effect was often permanent when intestinal antisepsis had been carried out during the intervals. (*Journ. of Nerv. and Ment. Dis.*, Feb., 1894.)

B. M. CAPLES.

KIDNEY LESIONS IN SULPHONAL POISONING.—Dr. Stern reports the case of a woman of 70, who died of sulphonal poisoning. She had taken about 150 gm. in the course of five months, but with occasional intervals. The clinical picture was the usual one of stupor, deepening into coma, constipation, mental confusion, weakness and hæmatoporpyrinuria. Macroscopically, no cause could be discovered for the lethal termination. Microscopic examination of the kidneys showed extensive cell necrosis in the convoluted tubules and the ascending limbs of Henle's loops. The glomeruli contained fibrinous and blood coagula. The vessels of the renal cortex were engorged, the arteries showing thickened walls. The author thinks there is no doubt that this toxic nephritis was due to the sulphonal. (*Deutsch. Med. Wochenschr.*, No. 10, 1894.)

G. J. KAUMHEIMER.

NOTES ON SOME CASES OF NERVOUS DISEASE, TREATED WITH BROWN-SEQUARD'S ORCHITIC FLUID.—Experiments were made by Guy M. Wood and A. J. Whiting and recorded in *The Lancet*, Feb., 1894. Fluid obtained from Dr. Brown-Sequard direct, administered with all necessary surgical precaution to 23 patients. Four cases of tabes dorsalis, in three of which no improvement was noted; two of Friedreich's ataxy, with no improvement; one of ataxic paraplegia, which at first improved but soon relapsed; four of disseminated sclerosis and two of lateral sclerosis, with no improvement; four cases of paralysis agitans, with no noticeable improvement; one of alcoholic neuritis with no more rapid improvement than this class of patients shows; two cases of functional disease, with no improvement. At the commencement of the observations a number of the patients expressed themselves as feeling better after the injections; but these subjective sensations of wellbeing were in all probability due to the mental effect of the hypodermic injections, as injections of distilled water were found to elicit the "same feeling." Only one case, and that is very questionable, out of 23 showed any improvement.

T. W. BISHOP.

NERVOUS TRANSFUSION IN INSANITY.—Cesàre Rossi, (*Rivista Sperimentale*, XIX., iv.,) reports clinical investigations with nerve extract from ox's brain, prepared according to the method of D' Arsonval, except that it was filtered through paper. Strict antisepsis was observed. He employed this on ten patients, all of curable forms of insanity. In only two of these was there any improvement, in one of them only transitory, more permanent in the other. While he does not positively deny any value to this means, the active principle of which is not known to us, unless it be the phosphates as some suppose, he thinks its good efforts will be most manifest in those cases where a psychic factor can possibly come in play, namely suggestion. This opinion had been vigorously maintained already by Massolongo, (*Riforma Med.*, 1893, No. 29, 30, 31 and 32) who in a learned and conscientious research claims that all that has been said and written on the method of Brown-Sequard and Constantin Paul, forms only "a new chapter of suggestive therapeutics."

H. M. BANNISTER.

OBSERVATIONS ON THE ACTION OF THE BRAIN OF THE SHEEP IN THE DISEASES OF THE CENTRAL NERVOUS SYSTEM AND MIND.—Dr. Alex. Robertson administered the extract to six asylum patients; in two there was improvement; in four no apparent alteration in the mental disorder. The most marked change occurred in a case of resistive melancholia of two years and three months standing, the patient not having spoken for a year previous; the other being a case of profound melancholia of 13 months standing. From his experiments, Dr. Robertson is led to believe that there is a constituent in the brain of the sheep, and doubtless of other animals, which acts as a stimulus to nerve tissue cells and fiber in certain morbid states. (*British Med. Jour.*, Dec., 1893.)

T. W. BISHOP.

THE ACTION OF ELECTRICITY ON THE PNEUMOGASTRIC—IS IT OF VALUE IN CHLOROFORM NARCOSIS?—Dr. A. D. Rockwell had occasion to resort to electricity to restore respiration and pulse in a child, aged six, who was chloroformed to subject a large naevus materni upon the cheek to electrolytic action. One pole of a faradic apparatus was placed at the junction of the clavicle and the outer border of the sternocleido-mastoid muscle and a vigorous current applied. In a few moments the heart again beat regularly. From his observations in opium poisoning, Dr. R. reaches the conclusion that the current affects the accelerating fibers of the

vagus controlling respiration, and not to any considerable extent the inhibitory fibers controlling the action of the heart.—(*Med. Record*, Feb. 24, 1894.)

R. W. ROHRDANZ.

SURGERY AND TRAUMATIC NEUROSES.

CEREBRAL ABSCESS FOLLOWING INJURY TO SKULL, OPERATION.—At the session of the Academia Medico-Quirurgica Espanola, March 8, 1894, Dr. Antonia Brava presented a patient upon whom he had performed trephining in the right frontal region for relief of a depressed fracture, and an intrameningeal abscess which had followed it. The patient was a very interesting case on account of the following special circumstances. He was a youth of twenty-four years, of excellent health, and was a laborer by occupation, born at Onrubia in the Province of Segovia, who had received a cerebral traumatism through the explosion of a fowling piece. He at once lost consciousness after the receipt of the injury, and remained in a state of cerebral congestion, with symptoms of evident cerebral contusion. He remained in this condition ten or fifteen days, when he began to manifest evidences of cerebral abscess. The most important symptoms of which were intense headache, vomiting, epileptiform attacks, contractions of the muscles of the left arm, cramps, etc. His condition continued to become more and more aggravated until the time when he was sent to Madrid to undergo operation. At that time the following symptoms were manifested: Evidence of great congestion accompanied by epileptic attacks, paralysis of the left side, etc., which obliged the doctor to perform an operation for the relief of the intracranial pressure. The skull was trephined in the right frontal region, and spiculæ of bone from the internal table of the skull were removed. The dura-mater bulged into the wound, and was opened, the incision permitting the discharge of a great quantity of pus. The focus of inflammation was abundantly washed, and the wound was dressed by tamponing the cavity, and covering the opening with iodoform gauze. The patient passed through the operation admirably, and was in a great degree relieved of the symptoms, but the suppuration continuing, it was necessary to wash out the wound, and swab out the cavity with a solution of chloride of zinc of full strength, which procedure was successful in disinfecting the focus completely, when the patient made a

rapidly radical recovery without losing any of his intellectual faculties, and without paralysis; in a word, he was completely restored to a normal physiological state. (*Revista de Medicina y Cirurgia Practicas*, Apl. 22d. 1894.)

H. M. BROWN.

UNUSUAL CASE OF GUNSHOT WOUND OF THE BRAIN.—This interesting case was observed by Dr. J. E. Tefft. A healthy boy, aged 12, was shot with a pistol ball, calibre 22, at short range, the ball penetrating the frontal bone, seven-eighths of an inch above the upper margin of the left orbit and one inch from the middle line. Was subjected to an operation 2½ hours after injury. A Nelaton probe dropped by its own weight backward and slightly downward, about 7½ inches, being arrested in the left occipital region. Trephining in this region disclosed the ball. There was no hemorrhage or oozing and no pus subsequently. During first three days there was a decidedly febrile condition; after that pulse and temp. remained normal until the eighth day. The boy was conscious, intelligent; special senses unaffected. Right leg and arm were weakened. On the eighth day he showed restlessness alternating with somnolence, temp. rose, pulse became more frequent. Died on the twelfth day. Autopsy revealed no abscess or pus in the track of the ball. (*Med. Record*, April 21, 1894.)

R. W. ROHRDANZ.

A COMPLICATED CASE OF FRACTURE OF THE BASE OF THE SKULL.—Furber reports the following case: Miss G. thrown from a dog cart Dec. 13, and struck her head on a curbstone, unconscious for about ten minutes, bled profusely from the scalp wound and from the nose and mouth, vomited large quantity of blood one hour and a half and again four hours after accident, no subsequent vomiting. Hæmorrhage from left ear, nose and mouth. Bleeding from left ear ceased three hours afterwards. Dec. 14, twitching of left forearm, hand and leg noticed, complained of considerable pain and throbbing on left side of head and in left ear. Dec. 16, well marked amnesia, could not name simple objects, did not know her right side from her left, could not sustain a conversation owing to loss of words. Dec. 19, for the first time no recent bleeding seen in pharynx. Dec. 22, crossed diplopia first noticed, false image was to right and below, partial paralysis of left internal rectus and superior oblique muscles, amnesia slightly less marked. Patient realized for first time that she had had some accident. Dec. 30, proptosis of left eye first

noticed, increased slightly for two days, then gradually diminished, but had not entirely disappeared four months after the accident. March 12, was able to walk about the house, still had slight amnesia when excited, complained occasionally of nausea after exertion, temperature remained between 100 and 101 for the first nine days, gradually settled to normal but did not become constant for at least two months, constipation most obstinate for a month. The author sums up the apparent injuries as follows: (1) fracture of the middle and anterior fossae of the base of the skull; (2) intracranial effusion, causing twitching of left leg and arm and proptosis of left eye; (3) injury to left third nerve causing crossed diplopia; (4) well-marked amnesia; (5) loss of smell and taste; (6) severe scalp wound over right temporal region. He considers the severe hæmorrhage at first beneficial as it lessened the chances of intercranial hæmorrhage. (*Brit. Med. Journal*, April 28, '94.)

B. M. CAPLES.

TREPHINING FOR MENINGEAL HEMORRHAGE.—Patient suffered fracture and depression of lateral portion of skull, became unconscious and insensible to sound but sensitive to light and pinching; lay motionless with left leg semi-flexed on knee and hip, right fully extended and rotated outward, no reflexes on either side and no apparent paralysis of arms or face, coma rapidly ensued; lids of left eye swollen and ecchymosed; globe prominent, left pupil larger. Portion of parietal bone was removed, bleeding ensued; surface of dura packed in iodoform gauze; patient rallied from operation; on following day could answer questions sensibly but was drowsy; for some time would answer first question correctly, but succeeding questions elicited the same answer; recovery progressed gradually. Opening in skull measured $4\frac{1}{2}$ inches by $3\frac{1}{4}$ inches, there being a depression of $\frac{3}{4}$ inch at center of cicatrix.

T. W. BISHOP.

SURGICAL TREATMENT OF HYDROCEPHALUS.—Prof. O. Wyss reports that he has performed puncture of the cranium and the spinal canal a considerable number of times since 1886, without any permanent results, but without any bad results. In one case, seven months old, when taken sick, in which amaurosis and hydrocephalus remained after a basal meningitis, he punctured through the greater fontanelle seven times in nine months. Vision returned for a short time after the second, for a longer time after the third, and permanently after the fourth puncture. He considers cranial and lumbar puncture indicated: 1. Where severe compression symptoms

accompany a fresh meningitis. 2. In the later stages of non-tubercular chronic meningitis, especially syphilitic. 3. In enlargement of the head following meningitis. 4. In case of the loss of important functions, as amaurosis from hydrocephalus, especially in the absence of neuritis. (*Neurolog. Centralbl.*, No. 3, 1894.)

G. J. KAUMHEIMER.

PRESSURE PARALYSIS OF THE BRACHIAL PLEXUS.—Prof. H. Braun, of Königsberg, calls attention to the possibility of causing paralysis of part or the whole of the brachial plexus by extreme and long continued extension of the arms above the head during anæsthesia. He relates a case in which the elevation of the arm had caused cessation of the radial pulse, by compression of the axillary artery by the head of the humerus. In another case, both arms were paralyzed. In this case, he attributes the paralysis to the pressure of the clavicle upon the nerve trunks which are crowded against the spinal column. Here the entire brachial area was paralyzed. If the paralysis is caused by the head of the humerus, some branches will be involved, others will escape. He attributes many cases of paralysis occurring during sleep (*Schlaf-Paralysen* of the Germans) to this cause, rather than to compression of the nerve by the head or against the edge of the bed. He also calls attention to the dangers resulting from the too vigorous application of the elastic bandage as a hæmostatic agent during operations, relating four cases in which paralysis of the parts below the point of application resulted. Especial care must be used in children and in adults with atrophic or illy developed muscles, and on the upper extremity. In the lower extremity, where the nerves lie between large muscular masses, such paralyses have not been observed. (*Deutsch. Med. Wochenschr.*, No. 3, 1894.)

G. J. KAUMHEIMER.

TREATMENT OF EXOPHTHALMIC GOITRE.—Dr. L. Rehn publishes a plea for early operation in this disease, before the terminal symptoms set in. From a large experience he claims the prognosis is favorable if operation is performed after a thorough trial of internal medication and before the appearance of oedema and cardiac exhaustion. The operation must be adapted to the variety of goitre found. The author believes the entire symptom-complex to be due to anomalies of secretion in the gland. (*Deutsch. Med. Wochenschr.*, No. 12, 1894.)

G. J. KAUMHEIMER.

CASE OF SPASMODIC TORTICOLLIS, SECTION OF SPINAL ACCESSORY AND RECOVERY.—The etiology of a case of spasmodic wry neck, reported by Dr. A. G. Francis (*Lancet*, Nov. 11.) so simulates that of the occupation neuroses as to warrant his classifying his case in that category. Patient, a trombone player, habitually accustomed to inclining head to right side and turning face to opposite; with the torticollis he developed delusions that he was “followed,” “ill-used,” etc. Medical treatment failed and division of spinal accessory was decided upon and performed. Six days after operation slight clonic spasms recurred, probably due to double nerve supply of sterno-mastoid and trapezius; patient became maniacal. Normal mental condition soon returned, but on resuming his occupation slight spasms continued, upon discontinuing trombone-playing spasms ceased. The curative action of this operation would seem to depend on enforced rest of affected muscles, the central irritability subsiding when habit is broken.

T. W. BISHOP.

OBSCURE INJURIES OF THE SPINE, FOLLOWED BY PARALYSIS OF LONG STANDING.—Lewis A. Sayre records in the *N. Y. Med. Jour.*, Jan., 1894, a number of the above designated cases relieved, and eventually recovered by suspension and a plaster-of-Paris jacket. All his cases continued to feel improved so long as traction on the column was properly made by properly fitting plaster jackets. The writer has seen a number of Dr. Sayre's patients treated by the above method and witnessed the relief produced thereby.

T. W. BISHOP.

HYSTERIA AND TRAUMATISM.—Traumatic hysteria constitutes in a large percentage of cases, the principal part of the condition referred to in many of the damage suits so commonly diagnosed “spinal concussion,” or of later date “traumatic neurosis.” The prerequisites for the development of grave hysteria following traumatism, are an hereditary or acquired instability of the nervous system, plus the inhibitory effect of psychical stimuli; if the second factor is absent we have the transient and benign form, met with in ordinary cases. The man who cannot move his leg after an injury cannot move it because the motor apparatus of the brain is inhibited by the dominating idea that he cannot, and back of this is the fact that his attention is so firmly fixed on his disability that effort fails before the motor cells are influenced. Symptoms of this condition: paralysis of an ex-

treme type, when of the leg affecting the rotary muscles of the hip; never atrophy, except such as comes from disuse; reflexes exaggerated; usually anæsthesia, sometimes hyperæsthesia; pupil dilates when anæsthetic area is stimulated; excruciating pain, or distressing numbness; spinal tenderness, inability to sit up long, fatigues easily. With this pain, etc., there is often a cheerful countenance, placid mind and fortitude under suffering which excites wildest admiration of solicitous friends. The *tout ensemble* of these cases of traumatic hysteria is one of the domination by fixed ideas of helplessness. (Dr. Arthur Sweeney, *North Western Lancet*, Jan., 1894.)

T. W. BISHOP.

PSYCHOLOGICAL.

PATHOLOGY AND SYMPTOMATOLOGY.

CONCERNING THE MORBID ANATOMY OF INSANITY.—To prove that insanity has a morbid anatomy is the strong endeavor of Dr. E. H. Flint, (*Northwestern Lancet*). He starts with the following premise: The earliest pathological changes in the brain take place in its connective tissue and adventitia; the latest, in the functional tissue proper and these latter are the least permanent, soonest to heal and readiest to disappear at death. After detailing the post-mortem findings in 20 cases, he concludes as follows: 1. In all chronic, secondary insanities we find morbid changes in the membranes or fluids of the brain or both. 2. In cases sufficiently pronounced we find accompanying macroscopical morbid changes in the brain itself. 3. The departures from the normal are more marked in the membranes and fluids than in the brain itself. 4. Probably in accordance with the law stated in the beginning, there are always morbid changes in the anatomical integrity of the brain-substance in all cases of insanity, even though they as yet elude search after death. 5. Probably in most cases the morbid changes will be found to chiefly involve the associating tracts. 6. The above conclusions once proven and corroborated, a scheme of lesions could be established and their relations to symptoms determined with such accuracy, that the preceding clinical history of a given case might be fairly determined by the post-mortem study of the brain.

T. W. BISHOP.

THE PHYSICAL BASIS AND THE INSANE DIATHESIS.—There has been a constant advance in the knowledge of the pathogenesis of insanity, and that advance has been contemporary with the discarding not only of the element of the supernatural but of all metaphysical speculation as to the intrinsic nature of mind. Modern alienists never consider that the outward manifestations of mind have any other than a physical basis, “no psychosis without a neurosis,” being the guiding axiom. In a series of cases of insanity in its various forms and stages, we can not invariably find definite or even indefinite nervous changes which will explain in whole or in part the symptomatic manifestations. In those

cases which show no pathological lesions, Dr. White thinks there has occurred a change in molecular composition not capable of demonstration. According to this view it is believed that the future progress of psychiatry will be greatly aided by an appeal to the laws of chemolytic cleavage and molecular physics. Another view—by analogy we may assume that the group of the cortex is peripheral and that the higher and later acquired functions are ascribed to its outer regions, there being thus a functional lamination, the functions increasing in complexity from within outward; hence it is that the outward region of the cortex, younger and less stably organized, is first affected. The progressive development of melancholia, mania, and terminal dementia typically illustrates this course of events. Melancholia being a result of the disintegration of the highest cortical regions, further and deeper disease destroying them would cause symptoms of mania, these being due to loss of higher inhibitory control; finally dementia, with its deep-seated and destructive tissue changes, closes the picture. It is easy enough to recognize those dangerous symptoms of cerebral exhaustion which afflict the over-worked business man, but to recognize those subtle departures from the normal, manifesting themselves in a child, requires special knowledge and skill. Dr. W. A. White's first and foremost conclusion is that for each and every manifestation of mental activity, whether the fitful flush of the emotional state or the prolonged and laborious process of reasoning, there is a corresponding and correlated nervous activity. (*American Journal of Insanity.*)

T. W. BISHOP.

THE PER CENT. OF HAEMOGLOBIN IN THE BLOOD AND ITS SPECIFIC GRAVITY IN THE INSANE.—Dr. Vorster has repeatedly examined the blood of 128 insane patients and reaches the following conclusions: 1. Psychical excitement with active, persistent motor unrest, cause a decrease in Sp. Gr. and per cent. of hæmoglobin. 2. If in the course of a psychosis—in melancholics or the apathetic demented—signs of venous stasis appear, the Sp. Gr. and hæmoglobin increase. Such patients, even if anæmic, may have normal or even increased blood values. 3. If in the course of an exalted or depressed state, the Sp. Gr. and hæmoglobin per centage decrease, they will increase with the body weight, during convalescence. 4. After epileptic and paralytic attacks, occasionally an increase of Sp. Gr. and hæmoglobin is found. 5. Epileptics who have taken bromides for years, show a higher Sp. Gr.

and hæmoglobin percentage than those epileptics who have not taken bromides or for a short period only. (*Allgemeine Zeitschr. für Psychiatrie*, Vol. 50, No. 3-4, 1894.)

R. W. ROHRDANZ.

SPECIFIC GRAVITY OF URINE IN INSANITY.—Stefani, (*Rivista Sperimentale* XX. i, March, 1894), finds from a study of the urine of some eighty patients, suffering from varied forms of mental disease, and continued for the period of a month or more, that in all psychopathics of a more or less acute character, independently of the special form of mental disturbance, there is, compared to the initial stage, a notable increase in the specific gravity of the urine (reaching 1030-1040 and over.) If the disease is of short duration, the specific gravity decreases with the remission or disappearance of the symptoms, suddenly or gradually, to the normal or even below it. (In this last case the quantity of the urine is increased). The changes in the urinary specific gravity follow, as a rule in acute cases the changes of the mental condition, but if the disorder is continuous and tends to become chronic it tends ultimately to diminish and remain within the normal limits. In imbecility, primitive paranoia, senile dementia, and parietic dementia with tranquil course, there is no notable augmentation, and the same is the case with quiet chronic terminal conditions. If exacerbations occur, however, the urine shows an increase of specific weight even up to 1040 or more. From these results Stefani thinks that methodic examinations of the specific gravity may be of some value in the diagnosis and prognosis of psychopathics in general. His patients that were the subjects of this investigation were none of them suffering from any marked physical complication that might have affected the results, and account was taken of their physical condition, diet, ingestion of fluids, etc.

H. M. BANNISTER.

GUSTATORY DISORDERS IN THE INSANE.—Mingazzini, (*Arch. di Psich. e di Sci. Penale*, XV. 1894, I. and II.) has studied the disorders of the gustatory sense in the insane and enumerates the following propositions from his results: 1. *Mania* (47 cases), is marked by a *minimum* of disgeusia, the lack of parageusia and antigeusia (only one case of these), scarcity of monoageusia, and a *minimum* of pana- and hypogeusia. 2. *Melancholia*. (67 cases.) Moderate amount of disgeusia, *maximum* of frequency of delayed gustatory perception, scarcity of anti- and parageusia, *minimum* of panageusia and *small* quantity of monoageusia. 3. *Paranoia*. (94 cases.)

Moderate quantity of disgeusia, scarcity of pana- and hypogeusia, the multiplicity of antigeusia (tried with salines, bitter and sweet) and of parageusia, by lack of monoageusia.

4. *Hysterical Psychoses*. (27 cases.) Here we see an enormous frequency of disgeusia, lack of pana- and hypogeusia; slight amount of parageusia (only to bitters), multiple antigeusia (acids, salines and bitters) lack of monoageusia and delay of taste perceptions. Lowenfeld (*Path. u. Therap. der Neurasth. u. Hysterie*, Wiesbaden, 1893) affirms that in hysteria the disorders of taste are the most frequent of the sensory derangements. He supports this assertion by the authority of Lichtwitz who found these disturbances in 8 out of 9 cases examined. My experiments do not afford any argument in favor of so high a proportion. Disgeusias are certainly relatively frequent in hysterics, thus we reach in them, after idiots, the maximum, but we are far from the high figures of Lichtwitz. These results, however, do not disprove those of Lichtwitz which are in harmony with those of many alienists.

5. *Epilepsy*. (75 cases.) Distinguished by enormous frequency of disgeusia, moderate amount of pana- and hypogeusia, parageusia (acids, salines) and antigeusia (only acarico acids), and by multiple monoageusias.

6. *Dementia paralytica*. (67 cases.) Marked by the maximum of disgeusias, and of panageusia (acids and sweets), antigeusia (acarico acids, salines and bitters), and monoageusia.

7. *Senile Psychosis*. (31 cases.) Abundance of disgeusias, moderate amount of panageusias, lack of panipogeusia and antigeusia, scarcity of parageusia and monoageusia.

8. *Alcoholism*. (86 cases.) Here we notice specially the frequency of disgeusia and panipogeusia, multiplicity of parageusias (acarico acids and salt), of antigeusia (acid, bitter and sweet) and the moderate amount of monoageusia.

9. *Moral Insanity*. Marked by the *minimum* of disgeusia, the lack of anti- and parageusia and of monoageusia, and the marked frequency of pana- and hypogeusia.

10. *Idiocy*. (26 cases.) *Maximum* of disgeusia, moderate frequency of pana- and hypogeusia, *maximum* of multiple antigeusia (acids, salines, bitter, sweet), of parageusia and monoageusias.

11. *Imbecility*. (30 cases.) Maximum of frequency of pana- and hypogeusia, moderate amount of anti- and parageusias, and scarcity of monoageusias.

12. In *neurasthenic, hallucinatory* and secondary dementia psychosis the number of cases examined was too few to warrant any positive conclusions. Recapitulating: the "psycho-neuroses of the "robust brain" (the simple vesanias), mania and melancholia, are marked by scarcity of disgeusias in general, but in melancholia there is a maximum of slowness of gustative perception, which stands in relation with that

kind of arrest that exists of all the psychic and organic processes of mental activity. On the other hand in the "psycho-neuroses of the invalid brain" (the organic psychoses) and principally in epilepsy and hysteria, pana- and hypoageusia are absent or infrequent, mono-, para- and antiageusias numerous; in other words the degenerative forms of disgeusias tend to predominate over the forms of diminution. In states of mental weakness (paretic dementia, alcoholism) we find, together with a rather considerable frequency of pana- and hypoageusia, multiple para- and antigeusias; paresis is distinguished by the multiplicity of disgeusias much more than alcoholism; in senile dementia they occur in moderate frequency. In the defective developmental-psychoses conditions vary; thus in idiocy we find moderate frequency of pana- and hypoageusia, and multiple monoageusias, and para- and antiageusias in particular. The reverse is the case in imbecility. The degenerative forms of disgeusia are therefore most frequent in idiocy, those of diminution in imbecility. In moral insanity disgeusias are scarce and the degenerative types altogether wanting. The disturbances of taste therefore decrease both quantitatively and qualitatively from idiocy to moral insanity. This agrees with the view that in moral insanity we have a morbid entity, distinguished from the common form of imbecility by a predominating lack in the ethical sphere.

H. M. BANNISTER,

ALTERATION OF THE VOICE IN THE INSANE.—Morselli analyzes (*Boll. delle mal. dell' Orecchio, etc.*, Anno XI, No. 2, 1893), the alterations of phonation and articulation observed in the insane. The spoken word is derived from the gesture as follows: 1. mimetic movements; 2. emotional reflex phonation; 3. imitative phonation; 4. simple articulate phonation, with meaning; 5. complicated articulate speech. The microcephalic idiot often possesses only emotional reflex phonation; in lighter grades of idiocy imitation of sounds is observed, as well as the guttural sounds. Excessive phonation (hyperphonia) shows itself in violent emotions and excited states; hypophonia in the opposite states. Paraphonia is found in intense irritative conditions of the subcortical phonic centers; dysphonia in lesions of the speech centers, as in paralysis. These varieties may be combined. The usual parallelism between the strength of the voice and the emotions is not constant in the psychoses. Intentional aphonia is noticed in the delusions of guilt of melancholics and in delusions of persecution. Hysterical mutism, which may also occur in many psychoses, must not be confounded with this. Transi-

tory psychical aphonia may occur. The pitch of the voice may change in excitement, often from a half to an entire octave. Some voices are high, others low, and in delusions of persecution and grandeur, two tones are often heard. Exclamations and interjections are usually produced by the emotions, but may be reflex and impulsive. The raising and lowering of the voice and the accentuation of sentences, words and syllables is of importance. In anxious melancholia inspiratory vocalization is noticed. Accentuation is increased in excited and diminished in depressed states. The proud paranoiac accents every word. The words may be dissected, while false accent of words or syllables is common. Some speak with pathos, others use a chant or recitative. Excited patients prefer words containing A, I, labials and dentals; depressed patients seem to prefer O, U, nasals and gutturals. (*Neurolog. Centralbl.*, No. 5, 1894.)

G. J. KAUMHEIMER.

TREMOR IN THE INSANE.—Cristiani, (*Rivista Sperimentale*, XX, 1, 1894,) concludes from experimental researches that in insanity generally of all the various forms we may meet with tremors, independently of other factors, due solely to the altered functions of the psychic sphere. These tremors are of the "intention" kind, ceasing during repose. They cannot be referred to any single form of mental disorder, but are solely connected with the two fundamental symptoms of excitement and depression. In excitement the tremor is vibratory, more frequent, a rhythmic and unequal; in depression it is undulatory, slower and more rhythmic. The tremors of the insane have a pathogenic mechanism and a semiotic significance that may be stated to depend on a functional dissolution of the nerve center, and a weakness, incoordination and dissipation of the psychomotor energy.

H. M. BANNISTER.

"COLLECTIONISM" (KLEPTOMANIA) IN DIFFERENT FORMS OF INSANITY.—Mingazzini, (*Rivista Sperimentale*, XIX, 4, p. 541,) discusses the symptom of kleptomania in the various psychopathic conditions, reporting briefly a very large number of observations and collating the results. By "collectionism" he means the tendency to gather articles, which he divides into the various forms of polycollectionism, polyclepto-collectionism, monocollectionism, etc., terms which readily interpret themselves and can readily be applied by any one who has had opportunities of extensive observation of the

insane. From the analysis of his nearly one hundred cases Mingazzini finds that while the types of monocollectionism or of monocleptocollectionism predominate almost exclusively in the psychically degenerated, the polycollectionism in general, as shown in his table, is met with in ninety-three per cent. of the insane. It shows also that all the forms of polycollectionism are most met with in the types characterized by mental weakness, thus indicating (1) that as the tendency loses the unilateral character and extends gradually towards the confines of its domain, it becomes more fixed in the insane, and (2) that polycollectionism is constantly the exponent of a profound psychic insufficiency or dissolution. But in the psychic form characterized by a congenital mental defect (imbecility, idiocy) the tendency to collect is an episodic phenomenon or symptom of less value than many others in forming the diagnosis and prognosis. In the psychopathics on the other hand (mania, melancholia, paranoia, etc.) in which there is a possibility of a termination in dementia, the appearance of this symptom, accompanied or not by cleptoid symptoms, may be the first, or among the first signs, announcing the beginning of the end. It is not in contradiction to this fact that we sometimes see the tendency to collect in curable forms, the classic mania, etc., since here the symptom is mainly the result of the restless activity of the patient and not by any means a true kleptomania.

H. M. BANNISTER.

INITIAL DELIRIUM IN TYPHOID FEVER.—Aschaffenburg reports the case of a woman of 30, who was brought to the Heidelberg psychiatric clinic the day after being taken suddenly ill. She presented lively motor excitement and rapid ideation with hallucinations and mental confusion of a severe grade. There was also a peculiar stupor, resembling drunkenness. There was no fever. Nevertheless, the diagnosis was made as in the title of this paper and confirmed by the autopsy. From an experience of 17 cases, A. divides the initial delirium in typhoid into two forms, which are united by transition forms. The first variety, resembling the “conceptions délirantes” of the French, is characterized by a dreamy delirious state, the second by great excitement and complete confusion of ideas. He considers them as intoxication-delirium. The abnormal course of the fever has been declared by Gerhardt as an intoxication symptom. Nissl, who examined part of the cortex of this case, reported that the ganglion cells were in all stages of dissolution. There was rarefaction of the nuclei, succulence of the glia cells and karyokinesis of some of their nuclei. (*Neurolog. Centralbl.*, No. 2, 1894.)

G. J. KAUMHEIMER.

THE ETIOLOGY OF IDIOCY.—The following figures are given from the abstract of a work by Herman Piper, (published in *Neurolog. Centralbl.*, No. 5, 1894). The author, being inspector of education at the idiot asylum of the city of Berlin, enjoys exceptional advantages. Statistics of 416 cases are given, 310 of congenital, 106 of acquired idiocy; 70 % of the cases had convulsions; 32 % were first born children, although instrumental labor is noted as a cause in only one case. In the congenital class, phthisis of parents or near relatives was noted in 23 %; insanity in ancestors or collateral branches, in 14 %; no cause could be found in 17 %; the father was a drunkard in 10 %; parents or relatives were epileptic in 7 %; syphilis was accused in 5 %; family trouble during pregnancy, and mental enfeeblement in parents or grandparents, each in 4 %. Consanguinity of parents was noted in only 3 %; fall of the mother during pregnancy, premature birth, cardiac or renal lesion of parents, each in 2 %. Only one child had deafmute parents. In acquired cases, scarlet fever, diphtheria or typhoid were given as causes in 27 %; measles in 11 %; rickets and meningitis each in 9 %, and protracted and severe birth in 6 %. The relation of sexes is 276 males, 140 females. The proportion of congenital to acquired cases is 3 to 1, as against the proportion throughout the German empire, 2 to 1, and this is probably a more exact estimate. (*Neurolog. Centralbl.*, No. 5, 1894.)

G. J. KAUMHEIMER.

GENERAL PARESIS, A TOXINE DISEASE.—H. M. Bannister contributes to the April number of the *American Journal of Insanity* an excellent article on the present theories of the etiology of general paresis. Three views are held by authorities as to the relations of syphilis and paresis. 1. That syphilis has no part in the etiology of the disorder. This view was the prevailing one in the early history of the affection, but statistics of late years have rather given place to another view. 2. That syphilis constitutes a predisposing cause in a large number of cases but that paresis could not itself be considered as syphilitic. This is probably the dominant view at the present time. There is considerable range of opinion among authorities of this group as to the etiological importance of syphilis, the general opinion being that the specific infection simply prepares the way for the casual factors, mental strain, worry, traumatism, intemperance, etc., to bring on the disorder. The third and last opinion is that paresis is always or almost invariably of syphilitic origin and in its extreme form that it is itself only a late manifestation

of syphilis—an effect of the syphilitic poison. Dr. Bannister believes that from the present trend of opinion that the view that paresis is in almost every instance, if not in all, a result of syphilis, will become before long the prevailing one. A review of statistics and data of a dozen authorities mentioned in this article shows syphilis in from seventyfive to ninety per cent. of cases. The fact that paresis can be indisputably caused from comparatively recent syphilis and that this is in all respects undistinguishable from the usual type is now generally recognized and supports the view of the general syphilitic character of the disease. Other facts supporting the specific origin of paresis are those of conjugal paresis as lately reported by Dr. Dewey and others in which husbands seem to communicate the disease to wife; also cases of precocious paresis in which it appears at puberty in subjects of hereditary syphilis. The relative influence of profession or occupation is also significant in this connection. Members of certain trades and professions seem to have an especial liability to paresis, as military men, railroad men and commercial travelers. That this is not simply due to the hardships and hazards of the life they follow, is indicated by the fact that seventy per cent. of the female paretics at Kankakee were wives of men of these classes. After successfully answering the objections offered against this view of relation of syphilis to paresis, Dr. Bannister presents his theory that paresis is the result of the action of a poison on the nervous system and that poison is a specific toxine, needing only certain conditions to prepare the way for its activity. We have, therefore, in paresis a disease that in its typical form may unquestionably follow syphilis; that according to the best statistics is preceded in from seventy to ninety per cent. of all cases by syphilis; which seems to be communicable from husband to wife; that abounds in great cities and is rare in rural districts; that occurs early in people of hereditary syphilis; and that is especially frequent in classes of men and women in whom syphilis is common.

T. W. BISHOP.

THE ETIOLOGY OF PROGRESSIVE PARALYSIS, WITH ESPECIAL REFERENCE TO SYPHILIS.—This little work is of great interest. It deals with cases observed at the Asylum in Lappvik, in Finland. The population is sparse and relatively stable, so that the previous history could be ascertained, either from relatives, friends, the venereal clinic of the neighboring city of Helsingfors, or the patient's physician. In the 18 years from 1875 to 1892, 1520 patients were admitted. Of these 98 males and 9 females (7.03 %) were paralytics. The males

were by occupation mostly civil officers, merchants and mechanics. Over half the patients were between 30 and 44 years of age, only one was over 60, none under 25; 81 patients (75.7 %) were surely syphilitic; 12 (11.2 %) had had other venereal troubles; in 14 (13 %) the histories are silent on this point. Among the balance of the asylum population 4.24 % had syphilis. In the majority of cases (51) the mental disease developed within 5 to 15 years after infection, in one case within 4 years, in another after 28 years. Psychopathic heredity was found in 23 cases, alcoholism in 12; traumatism is noted as a cause in 3 cases, psychical causes in 13, venereal excesses in 3 cases. Six cases had had an antecedent mental disease. Sixty-two cases showed the maniacal form, 9 the melancholic, 35 the demented and 1 the circular form of the disease. Most of the patients (81.8 %) died within 4 years, 43.4 % within 2 years. Delusions of grandeur were noted in 57 cases (53 or 49.5 % of the males, 4 or 44.4 % of the females); paralytic attacks in 66 cases, mydriasis in 68, myosis in 9 and pupillary rigidity in 62 cases. The patellar reflex was lost in 26 and exaggerated in 10 cases. Short histories of all the cases, with the results of autopsy in 71 cases, are appended. Leptomeningitis and its results were found in all cases. The author of this very interesting brochure concludes that: 1. Progressive paralysis, which attacks males much more frequently than females, is a disease which affects especially the urban population, but does not occur among women of the better classes. 2. The etiological significance of syphilis in progressive paralysis seems to be very great, although it does not seem to have any important part in the etiology of other psychoses. 3. Progressive paralysis occurs most frequently between the 30th and 45th year of age and within 4 to 5 years after specific infection. 4. The syphilitic symptoms which precede the paralytic affection, seem to be of a relatively mild nature. 5. As compared with syphilis, heredity, psychical causes, alcoholism, venereal excesses and traumatism play an unimportant part in the etiology of this disease. 6. The maniacal form is the most frequent, then the demented and lastly the melancholic form. 7. The prognosis was never favorable. Remissions occur rarely. 8. Paralysis from antecedent syphilis cannot be distinguished clinically from that due to other causes. 9. Antisyphilitic treatment was not followed by any improvement. 10. Autopsy did not disclose any pathological changes of an essentially syphilitic nature. We are indebted to the author for a copy of this paper. (*Beiträge zur Kenntniss der Aetiologie der progressiven*

Paralyse mit besonderer Berücksichtigung der Syphilis. Von Dr. Emil Hougberg, Ass't Arzt an der Irrenanstalt Lappvik bei Helsingfors, Finland.)

G. J. KAUMHEIMER.

A CASE OF PSYCHOSIS WITH LETHARGY OF SIX MONTHS' STANDING.—This interesting case came under Dr. O. Berkhan's observation. Patient, a girl, aged 15, fell into a sleeplike condition with occasional hours of wakefulness until February 7, 1883, from which date until July 7, 1883, the sleep was uninterrupted. Various symptoms of psychical disturbance preceded. She was timid, refused food, refused to leave her room, sat near a stove leaning her head on the same and sleeping constantly. March 27, 1883, looked like a wax figure, was pale, emaciated; cheeks slightly flushed, and toes mummified; had bed sore on back. Eyelids were almost entirely closed but opened slightly when shining object was held before them. The eyeball axes were parallel; pupils moderately dilated; the object not fixed, a bright light caused contraction of the pupils. Pricking with a pin was not felt excepting upon the inner surface of both thighs and inner edge of both planter surfaces where slight contractions were produced. Body was perfectly rigid when raised. Respiration 20, almost imperceptible, pulse 96, regular and easily felt because of emaciation. Bowels were evacuated twice in 6 weeks; scibala felt through abdominal walls; micturition involuntary. Transferred to hospital, June 26th; placed in warm bath; eyes opened for the first time; gradual improvement each day until patient awakened July 7th. She remembered nothing that occurred during lethargic state. Two years later the former psychical disturbances returned; patient retired in the afternoon and slept for many hours. Death occurred in the summer of 1886. Dr. Mader considers this case one of hysterical insanity. (*Allgemeine Zeitschr. für Psychiatrie*. Vol. 50, No. 3, 4, 1894.)

R. W. ROHRDANZ.

CASE OF SIMPLE MELANCHOLIA.—The varieties of melancholia according to R. M. Phelps, *Northwestern Lancet*, January, 1894, are first, agitated melancholia where delusive ideas of a melancholy character control the conduct toward an almost continuous agitation; second, stuporous melancholia, where the delusive ideas control the conduct toward a quiescent behavior, or occasionally toward a form of catalepsy or ecstasy; third, ordinary delusional melancholia, where delusive ideas control the conduct toward a behavior more mildly changed from the normal; and fourth, simple melancholia, in

which the ideas of a melancholy character control to some extent the conduct without going so far as to produce defined delusions. Dr. Phelps maintains the existence of the last class without delusions but not without, as he calls them, "wrong trains of thoughts," at the same time recognizing this condition as a frequent prodromal state, the delusions following.

T. W. BISHOP.

CASE OF CONCUSSION OF THE BRAIN, FOLLOWED BY ACUTE MANIA.—Dr. Herbert W. Page (*Lancet*, December, 1893), reports a case of a young man, 18 years, who received injury of occiput. No evidence of fracture or displacement of the cranium; no localized cerebral lesion could be decided upon; but profound unconsciousness continued for some time; no one-sided symptoms developed, but a continued slowness of the pulse showed there had been a profound impression on the medulla region. The classical indications for trephining were absent so that procedure was postponed, and patient was committed to an asylum as a maniac. From the above experience Page advises not to let the outward indications of wrong be the guide to follow in estimating the mischief there may be within, as splintering and depression of the inner table are among the commonest of unexpected lesions found, while surface hemorrhages, local injuries to membranes, circumscribed collections of blood, etc., are also common. The article is concluded by a judicious exhortation to make cranial exploration in the above variety of cases.

T. W. BISHOP.

PARETIC DEMENTIA AT PUBERTY.—A case of the above description is recorded in *Brit. Med. Jour.* Nov., '93, by Britowe. Boy of thirteen years was knocked down by a horse and struck on back of his head; was unconscious for three hours; but now intellectual ability gradually declined. About one year after injury had sort of seizure in which he lost power on left side; gradually became worse, shouted, screamed and became unmanageable; knee jerks first exaggerated, later lost, no ankle clonus; spastic gait; speech hesitating; hands were rubbed before face all day and unintelligible sounds uttered; emaciation progressively increased and boy soon passed only vegetative existence.

T. W. BISHOP.

RECOVERY AFTER LENGTHENED DURATION OF INSANITY.—Dr. J. A. Campbell records three cases of recovery from

insanity of long standing. After enjoining the profession to keep constantly in mind the fact that a possibility of recovery exists in many cases which some might deem hopelessly insane, he records the following: One of melancholia of seventeen years standing in a man of fifty-nine years; one of melancholia of nine years and seven months in a woman of sixty-eight years; one of mania of five years and eleven months in a man of thirty-two years. (*American Journal of Insanity.*)

T. W. BISHOP.

FETICHIC SEXUAL PERVERSION.—Dr. Paul Garnier reports (*Jour. de Med. de Paris*, Feb. 4, 1894,) the case of a twenty-nine-year-old, book agent of neurotic antecedents, who was arrested for manœuvres resembling those of pickpockets. He approached richly dressed women and palpated their dresses as if feeling for the pocket. No stolen property was found. He denied theft and was turned over to Dr. Garnier for examination. The accused had been brought up until his fifteenth year in a seminary and had become a species of mystic in consequence of his mother's religious erethism, in addition to the influence of the religious fanatics by whom he was surrounded. In the midst of his pietistic enthusiasm he was seized by imperative conceptions against which he battled often in vain. He had an intense desire to palpate silk. At its contact he was seized by a shiver. A singular genital sensation occurred and forced him to masturbate. This was especially the case when he saw a woman clad with silk. He was forced to leave the seminary on this account. He became an agent for a library and had excellent opportunities for assignation with women. He still, however, remained sexually unexcitable except by women clad in silk. He bought a silk dress and clad in this preferred the resultant excitement to the charms of the prettiest women. He was irresistibly impelled to palpate women clad in silk. He was acquitted of the charges of theft.

J. G. KIERNAN.

NEUROLOGICAL CAUSES OF IMPOTENCE.—A. C. Brush (*N. Y. Med. Jour.*, August, 1893), in discussing the above subject, considers the genital system as made up of external genitals, spinal and cortical centers. When time of puberty arrives, the sexual centers enter into a more active condition. The cells begin to store up power in a potential form, which, when it has reached a certain degree of tension gives rise to irritability and this continued even to an explosion of force.

The two centers mutually react on each other, but the cortical possesses a more or less complete inhibitory control over the spinal and it is not until its cells become irritated to such a degree that their action becomes disordered or delirious that this power is lost and the lower center allowed to discharge. So great is the mental disturbance which occurs at puberty that insanity sometimes occurs and even the healthy mind develops an emotional tone. Impotence from nervous causes may be due to four conditions, want of development, exhaustion, irritable weakness and perversion. In failure of development of spinal center, patient has perfect development of genital organs and ideas, but lacks power of erection. Failure of development of cortical centers occurs as part of the want of cerebral development in idiots, in other persons this condition has not been noticed. Sexual perversion may arise from three causes: want of opportunity for normal gratification, where sexual excess has exhausted the ganglionic centers, but the pervert finds that by stimulating them in some unusual way he regains the lost pleasure; and it forms one of the forms of insanity.

T. W. BISHOP.

MEDICO-LEGAL AND GENERAL.

THE MODERN TREATMENT OF INSANITY.—In a recent review of the present position of neurology in its relation to the other branches of the science and art of medicine by Dr. Timeteo Sanz y Gomez, formerly assistant physician at the asylum for insane at Carabanchel, the question of the best methods of handling the insane is very ably discussed, and after a careful review of former methods, and a careful analysis of the present position of legal medicine toward the insane, and of the advances which have been made in psychiatry, and in our knowledge of neuropathological conditions; he arrives at the following conclusions: That psychiatry, having for its basis experimentation, has kept fully in advance with the other collateral sciences, and that this science in conjunction with anthropology offers in the future great possibilities as a means of the solution of some of the social and ethical problems. From a clinical stand-point phrenopathy and its directly allied sciences, has kept well in advance with other sciences and has produced grand results which have been of value in the advancement of other branches of medicine. That the treatment of the insane by isolation is the only recognized and rational means for bringing about satisfactory results, and

that seclusion of patients, mentally diseased, should be permitted only in public asylums or in those the character of which is beyond reproach, and in which the responsibility for the care, both mental and physical, of the patients lies in the hands of individuals of recognized ability in the line of the care of patients suffering from mental and nervous diseases. The review is well worthy of careful reading, and particularly that portion which relates to the advances which have been made in the direction of localization of lesions in the brain, and in that part which relates to the anatomical changes which take place in the brain in the different forms of insanity. (*Revista de Medicina y Cirurgia Practicas*, April 22, 1894.)

H. M. BROWN.

THE PRESENT STATUS OF CRIMINAL ANTHROPOLOGY.—Dr. Kirn carefully reviews and criticizes the salient points of Lombroso's theory of the born criminal. He believes that the skull of a criminal shows nothing specific; that the malformation of the ear frequently found occurs very often under other conditions; that the physiognomy is not characteristic but varies, depending upon whether the criminal is free, in court or a convict; that the frequency of left handedness and diminished sensibility to pain is disproven. On the other hand, a lack of feeling and emotion, and a pronounced egotism, manifested in gratifying coarse desires, are seen in criminals, while lying seems to be a specific qualification. A careful clinical research does not, however, show an anthropological criminal type, much less a type for different criminalities. Science and experience must oppose any attempt to identify habitual criminality with moral insanity. The identification of the criminal with the epileptic, Kirn considers too unscientific to demand refutation. The writer concludes as follows: 1. The dogma of the born criminal must today be considered as thoroughly refuted. 2. Criminality is to a great extent a result of social conditions. 3. Anthropology is concerned in this question only in so far as it relates to the teaching of human degeneration, therefore criminal anthropology is but a chapter in degenerative anthropology. (*Allgemeine Zeitschr. für Psychiatrie*, Vol. L, No. 3 and 4, 1894.)

R. W. ROHRDANZ.

STATISTICS OF INSANITY IN CAPE COLONY.—The population of Cape Colony, 1891, was 1,527,000. White one-fifth, Kafirs and Bechuanas one-half. Insane persons 1108, male 616, female 492; a proportion of 80 females to 100 males, while in

civilized countries the proportion is 125 to 100. The percentage of insane to general population is .07 or .7 to 1000 of the total population; in England it is 3.02 per thousand. Among whites in civilized countries there is one insane individual to every 330, while in Cape Colony it is only one to 1577 or one to 1200 of the entire white population. According to the statistics insanity seems most prevalent among the Hottentot race and least so among the Kafirs and Fingoes. This interesting fact, perhaps, goes to prove that insanity is a disease of civilization; admitting that the savage brain is weak and least able to withstand the deteriorating influences that follow in the train of civilization, the Hottentot has been long subject to such influences, while the Kafirs are still in a savage or semi-savage condition. In England 9.1 per cent. of the insane are reported as suffering from general paralysis, while in Cape Colony, barring the native colored insane, it is 2.6 per cent. Epilepsy is represented by 6.4 per cent. The most frequent forms of insanity are mania and melancholia. In England, in 1888, 49.5 per cent. of the insane suffered from mania and 25.1 from melancholia, while in Cape Colony 53.8 per cent. suffered from mania and 10.9 per cent. from melancholia. The high per cent. of cases of mania may be explained by the fact that among the native races mental exaltation is most prevalent, a simple form of mania with a preponderance of the lower animal passions.

T. W. BISHOP.

THE INSANE KINGS OF THE BIBLE.—According to Dr. D. B. Burrell (in the *American Journal of Insanity*, of 1894,) the bible makes record of insanity, but only as manifested by great historical characters, those who serve to illustrate divine power. Saul's variegated life shows throughout an unstable equilibrium with tendency to extremes rushing from the extreme of evil to good and of good to evil; some of these oscillations even carrying him into the realm of actual insanity. His first simple depression merged into savage and homicidal insanity, and while a few bright pages adorn his history, Dr. Burrell thinks the misfortune that attended Saul and at length overwhelmed him and his house resulted in a great measure from his insanity. The fourth chapter of the book of Daniel studied with some knowledge of the far off past and in the light of insanity as manifested today presents a concise description of Nebuchadnezzar. Premonitory signs of the approaching derangement of Nebuchadnezzar are recorded in his witnessing the dream which Daniel afterwards interpreted. Dr. Burrell considers this premoni-

tion, the subsequent onset (the voice from heaven, etc.), the course (his absolute dejection and life in the woods) and the termination of his life as the most concise history of a case of insanity. Nothing could be truer to nature than the account of the recovery of the king, the coming out of chaos or self-absorption, the looking upon things about him and seeing them gradually assume their correct proportions, the return of understanding, the full return of reason, and then a heart overflowing with thankfulness, are all typical records of a typical case.

T. W. BISHOP.

VISITS OF RELATIVES TO PATIENTS IN INSTITUTIONS.—At the 25th meeting of the Southwestern German Psychiatric Society, Dittmar and Schüle, to whom this subject had been referred, reported the following: 1. Visits should not be allowed in recent cases of melancholia, at least until the acme of the disease has passed. Morbid fears, with or without imperative ideas, contraindicate visits in proportion to their severity. Occasionally, visits are desirable to enable the patient to realize his situation, and especially if natural, not morbid, nostalgia exists. In cases of refusal of food, a sensible talk by relatives may change the current of the patient's mind. 2. In mania, it is self-evident that visits are inadmissible in severe cases. Even in light cases, they had better be omitted except in cases where family anxieties or business or personal troubles act as a psychological irritant. In such cases a visit, especially from distant relatives, often quiets the patient. 3. Acute cases of paranoia are to be treated like the preceding, according to their exaltive or depressive characteristics, but even with greater caution. Of course, if the visitor is the subject of the patient's delusions or has any connection with them, he must be excluded. This applies also to the acute exacerbations of chronic conditions. 4. Conditions of atony and stupor contraindicate visits until convalescence is pronounced. 5. The same rule holds good in acute dementia, with even greater strictness. 6. Chronic paranoia submits to no exact rule in this respect. The condition of the patient, the common sense of the visitor, and his relation to the delusions must be considered. Delusions of being watched contraindicate visits. In the expansive forms greater liberality may be indulged in, as a timely visit may act as a corrective. The attempt should only be made, however, when all the symptoms speak for beginning improvement. 7. In conditions of chronic dementia, frequent visits may quiet and cheer the patient. 8. In the initial and excited stages of dementia paralytica, visits should be inter-

dicted. In the later stages no restrictions need be placed on them. 9. In alcoholic psychosis, the visitors should be selected, and, if not entirely trustworthy, should see the patient only in the presence of witnesses. 10. In hysterical and constitutional psychoses, especially in moral insanity, no visits, if possible, or only after careful instruction of the visitor in regard to behavior. 11. Visits to epileptics should be allowed only in the presence of assistance, owing to the danger of sudden violence. Some of the members stated that they allowed visits in the wards, others did not. Nissl has not seen any bad results from visits (about 5,100 per year to 260 patients) *Neurolog. Centralbl.*, No. 2, 1894.).

G. J. KAUMHEIMER.

ON OBSERVATION WARDS.—Sioli and Kraepelin, referees, reported the following conclusions to the Southwestern German Psychiatric Society: 1. The observation ward, with constant control and observation of its inmates, day and night, is an indispensable portion of the modern hospital for the insane. 2. The capacity of this ward in large provincial asylums should be from 7 to 10 % of the total capacity, rising to 20 % to 30 % or even more, in metropolitan institutions. The number of admissions is, of course, the determining factor. 3. The new patients, the suicidal and those refusing food, the unclean, paralyzed, and those with bodily ailments, excited patients, who are kept in bed, and all cases in which constant surveillance is desirable, should be kept in this ward. 4. To accommodate all these different classes, at least two wards are needed, one for the noisy, the other for quiet patients. 5. The ward should consist of a large sleeping room with adjoining day room, one or two single rooms, bath and closet; scullery and linen closet should be near. 6. This ward should differ as little as possible from the ordinary ward of a modern general hospital, with the exception of the necessary precautions for the safety of the patients. 7. The proportion of attendants to patients should be at least one to five. Answers to a circular letter showed that 70 institutions in Germany have such wards. These can be classified as follows: 14 large institutions, with an average population of 636, and 33 % of admissions; observation wards 1.23 % to 4 % of capacity; 53 institutions, average population of 579, 43 % of admissions, observation wards 4 % to 20 % of capacity; and 10 institutions, only one of which had over 300 patients and 168 % of admissions,

observation wards, over 20% of capacity. This, the referees point out, should not be confounded with the bed treatment. (*Neurolog. Centralbl.*, No. 2, 1894.)

G. J. KAUMHEIMER.

A NEW ASYLUM CLASSIFICATION OF INSANITY.—On motion of the Imperial Sanitary Council, and on report by Prof. Meynert, the Austrian Minister of the Interior has ordered all the institutions for the insane in that country, to adopt the following classification in their annual reports: I. Congenital mental disease: 1. Idiocy; 2. Imbecility. II. Acquired mental disease: A. Simple mental disease: 1. Melancholia; 2. Mania; 3. Confusional insanity, amentia; 4. Paranoia; 5. Periodic insanity; 6. Dementia. B. Complicated mental disease: 1. Progressive paralysis; 2. Epileptic insanity; 3. Hysterical insanity; 4. Neurasthenic insanity; 5. Insanity with circumscribed cerebral lesion; 6. Pellagrous insanity. C. Toxic insanity: 1. Alcoholism; 2. Other toxic psychoses, morphinism, etc. III. Other inmates: 1. Simulators; 2. Not insane; 3. Under observation. The classification previously in use included only mania, melancholia, paranoia, dementia, paralytic and epileptic insanity. (*Neurolog. Centralbl.*, No. 6, 1894.)

G. J. KAUMHEIMER.

NOTES AND COMMENTS.

DR. EMORY LANPHEAR, for many years editor of the *Kansas City Medical Index*, has resigned the chair of Operative Surgery and Clinical Surgery in the Kansas City Medical College and has removed to St. Louis. He makes the change in order to become Professor of Surgery in the St. Louis College of Physicians and Surgeons, one of the oldest and strongest medical schools of the west.

The St. Louis *Clinique* has passed into the hands of Dr. Emory Lanphear, professor of surgery in the College of Physicians and Surgeons. Dr. Lanphear will conduct the journal in the interests of that school, and of the medical profession of the West.

P. Blackiston, Son & Co. have forwarded us a copy of Hewson's Anomaly Blank. It is designed for the use of dissectors in recording any noteworthy anomaly found. As they are used most readily with Morris' Anatomy, they will be supplied to those using it free of charge with the name of the Demonstrator and College inserted.

We acknowledge receipt of the *Hospital Echo*, in which we find a letter from Secretary Hart, which contains a number of valuable suggestions.

BOOK REVIEWS.

THE TECHNIQUE OF POST-MORTEM EXAMINATION. By Ludvig Hektoen, M. D., Pathologist to the Cook County Hospital, Chicago; Professor of Pathologic Anatomy in the College of Physicians and Surgeons, Chicago. With forty-one illustrations. The W. T. Keener Co., 1894; 172 pp., \$1.75.

This little work is a model of its kind, written especially for the students who attend the author's pathologic demonstrations in the Cook County Hospital. It can be studied with great profit by every practitioner who may ever be called upon to make a post mortem examination. To be of value, either from a medico-legal or scientific point of view, a necropsy should be made with some sort of system. Opening with general considerations concerning the body, the instruments and other requisites, the form of report to coroners, the author takes the reader, step by step, to the examination of the various organs. The chapters on the examination of the brain and cord are especially full and complete. Two large plates in two colors (after Nauwerck) illustrate the exact method of opening and studying the brain. Virchow's, Meynert's and Pitres' methods are given. Indeed, it would be difficult to point out any deficiency in the work. The author has had ample opportunity to put all his suggestions to the test of practical experience. The illustrations and press work are very good.

G. J. KAUMHEIMER.

LECTURES ON AUTO-INTOXICATION IN DISEASE, OR SELF-POISONING OF THE INDIVIDUAL. By Ch. Bouchard, Professor of Pathology and Therapeutics, member of the Academy of Medicine and Physician to the Hospitals, Paris. Translated, with a Preface, by Thomas Oliver, M. A., M. D., F. R. C. P., Professor of Physiology, University of Durham, etc. Philadelphia, The F. A. Davis Co.; London, F. J. Rebman, 1894; 302 pp.

The theory that certain diseases or diseased conditions are due to poisons generated within the individual, is not new. It has remained, however, for the author of this work, to elaborate this theory, to isolate some of these toxic substances, to point out their origin and mode of action and to draw therapeutic deductions from these data. This is ably done in the thirty-two lectures contained in the volume before us. The author treats, successively, of the toxic substances

derived from the genito-urinary, gastric and intestinal tracts, both in health and disease, their action and the roles they play in disease. The work will furnish food for many hours of careful reflection. The English editor, Dr. Oliver, has furnished us a very clear and lucid translation of a very interesting work.

G. J. KAUMHEIMER.

APPENDICITIS OBLITERANS. By N. Senn, M. D., Ph. D., LL. D., Chicago, Professor of Practice of Surgery and Clinical Surgery, Rush Medical College, etc. Reprinted from the *Jour. of the Amer. Med. Association*, March 24, 1894.

In this paper Prof. Senn describes a form of appendicitis, characterized by frequent acute attacks of short duration, with little or no swelling, but persistence of tenderness in the interval. The pathological process is one of the gradual production and contraction of cicatricial tissue, which may lead, in time, to the total obliteration of the lumen of the appendix and spontaneous cure. As this process does not always proceed from the tip of the appendix, retention of septic contents occurs, which may cause trouble later. In view of this danger, and of the prolonged suffering occasioned by the disease, a radical operation is indicated. This paper is a valuable contribution to the voluminous literature on appendicitis and shows clearly why so many cases recover, temporarily at least, without operation.

G. J. KAUMHEIMER.

LAPARO-HYSTEROTOMY—ITS INDICATIONS AND TECHNIQUE. By N. Senn, M. D., Ph. D., LL. D., Professor of Practice of Surgery and Clinical Surgery, Rush Medical College, Chicago, etc. Reprinted from the *American Journal of the Medical Sciences*, September, 1893.

In this interesting article, Prof. Senn suggests the substitution of the term laparo-hysterotomy for Cæsarian section, which has become somewhat meaningless, and its adoption for all operations involving the opening of the uterus through the abdominal walls. He believes that it should supercede both craniotomy on the living child and symphysiotomy. Indeed, under the modern development of abdominal surgery, it would seem to be the safer procedure. The operation is also applicable to the treatment of large fibroids of the uterus, in which case the author recommends suture of the uterine wound, and vaginal drainage by means of gauze packed into the bed of the tumor and brought out through the vagina.

G. J. KAUMHEIMER.

Internationale Medizinisch. - Photographische Monatsschrift. Unter Mitwirkung hervorragender Gelehrten von Dr. Ludwig Jankau in München. Verlagsbuchhandlung Eduard Heinrich Mayer (Einhorn & Jäger) Leipzig, Rossplatz 16.

We have received the first number of this latest addition to specialistic periodical literature. It is devoted to the application of photography to medicine, in all its branches and will publish articles in the French, German or English languages. The increasing use of photography throughout the entire scientific world would seem to demonstrate the necessity for such a journal. The only criticism which the writer would make is that the illustrations are not up to the standard set in American medical works. This, however, may be remedied in future issues.

PAMPHLETS AND REPRINTS.

The Leprosy Problem.—By William Allen Pusey, A. M., M. D.

The Bacillus of Soft Chancre.—By William Allen Pusey, A. M., M. D.

Internationale Medizinisch-Photographische Monatsschrift.—Dr. Ludwig Jankau.

Beiträge zur Kenntniss der Aetiologie der Progressiven Paralyse, etc.—Von Dr. Emil Hougberg.

Clinical History of a Case of Spindle-celled Sarcoma of the Choroid.—By Charles A. Oliver, M. D.

A Series of Wools for the Ready Detection of "Color Blindness." By Charles A. Oliver, M. D.

The Relation of the Patellar Tendon-Reflex to Some of the Ocular Reflexes Found in General Paralysis of the Insane. By Charles A. Oliver, M. D.

Annual Report of the Milwaukee County Hospital for the Year Ending December 31, 1893, M. E. Connell, M. D., Superintendent.

Traumatic Paresis of Left Inferior Rectus, Combined with Traumatic Insufficiency of Left External Rectus. By Chas. Zimmerman, M. D.

Appendicitis, with Original Report of One Hundred and Forty-one Histories and Laparotomies for that Disease, etc. By J. B. Murphy, M. D.

Operative Surgery of the Gall-bladder, etc. By J. B. Murphy, M. D.

Conservatism in Accidental Surgery. By Edmund J. A. Rogers, M. D.

Report of a Case of Cerebral Tumor, Diagnosed by Focal Symptoms, with Operation and Removal of Tumor. By D. A. K. Steele, M. D.

Fracture of the Skull; Trephining; Retro-antegrade Amnesia; Recovery; Death One Month Subsequently from Other Causes; Autopsy. By Edmund J. A. Rogers, M. D.

State Board of Health Bulletin, Tenn.

Brain Surgery, with Report of Nine Cases. By F. C. Schaffer, M. D.

Tenorrhaphy by Means of the Suture á Distance of Catgut with Report of Case. By E. J. Senn, M. D.

Announcement for 1894 of the Northwestern University Medical School.

Fluid Cascara Sagrada Aromatic. Parke, Davis & Co.

Announcement of the Annual Meeting of the American Public Health Association at Montreal, Canada, Sept. 25 to 28, 1894.

Financial Statement of the Minnesota State Correctional and Charitable Institutions from August 1, 1893, to April 30, 1894.

Prospectus of the Summer School of Neurology and Psychiatry of the Illinois Eastern Hospital for the Insane, Kankakee, Ill. Given under direction of Dr. Clarke Gapin and Dr. Adolph Meyer.

NEW GERMAN BOOKS.

WICHMANN, RALF. *Der Werth d. Symptome d. sogen. traumatischen Neurose, etc.* Braunschweig, Fr. Vieweg u. Sohn.

SCHOLZ, FR. *Die Characterfehler des Kindes.* Leipzig, E. H. Mayer.

SCHOLZ, FR. *Handbuch d. Irrenheilkunde.* Leipzig. E. H. Mayer.

SCHOLZ, FR. *Lehrbuch d. Irrenheilkunde.* Leipzig. E. H. Mayer.

ZIEHEN, TH. *Psychiatrie.* Berlin. Fr. Wreden.

LANDMANN, S. *Die Mehrheit geistiger Persönlichkeiten in einem Individuum.* Stuttgart. F. Enke.

TREITEL, L. *Grundriss d. Sprachstörungen*. Berlin. A. Hirschwald.

BABES, V. AND BLOCQ, P. *Atlas d. path. Histologie d. Nervensystems. Lief. II., Régénération des Nerfs, Degénération u. Entzündung d. Nerven*. Berlin. A. Hirschwald. Parts sold separately.

CHARCOT, J. M. *Poliklinische Vorträge, Deutsch von Dr. Sigm. Freud*. Leipzig u. Wien. F. Deuticke.

GILLES DE LA TOURETTE. *Die Hysterie nach dem Lehren der Salpêtrière. Deutsch von Dr. K. Grube*. Leipzig u. Wien. F. Deuticke.

JANET, P. *Der Geisteszustand d. Hysterischen. Deutsch von Dr. M. Kahane*. Leipzig u. Wien. F. Deuticke.

MARIE, P. *Vorlesungen ü. d. Krankheiten d. Rückenmarkes*. Leipzig u. Wien. F. Deuticke.

STRUEMPPELL, A. VON. *Ueber die Alkoholfrage vom ärztlichen Standpunkt aus*. Leipzig. F. C. W. Vogel.

BENEDIKT, M. *Hypnotismus u. Suggestion*. Leipzig u. Wien. M. Breitenstein.

HIRSCHBERG, L. *Ueber d. Basedow'sche Krankheit*. Wien. Urban und Schwarzenberg.

NÆGELI, O. *Therapie v. Neuralgien u. Neurosen durch Handgriffe*. Basel u. Leipzig. Carl Sallmann.

MISCELLANEOUS MEDICAL NOTES.

A CONTRIBUTION TO THE STUDY OF PIPERAZINE.

DR. JOHN GORDON, Professor of Materia Medica University of Aberdeen, recently undertook a systematic study "to ascertain the solvent action of piperazine on uric acid, the expenses connected with the investigation being defrayed by the Scientific Grants Committee of the British Medical Association. Schering's piperazine was employed, PROF. ALEXANDER OGSTON furnished the supplies of calculi, and the investigation was made in the pharmacological laboratory of PROF. JOHN THEODORE CASH, F. R. S. The full report is published in the *British Medical Jour.*, June 16, 1894, and is an important and

highly interesting contribution, which will give the therapeutic adoption of Piperazin-Schering a decided stimulus.

DR. GORDON concludes his report with the following succinct summary:

ACTION OF PIPERAZINE ON ARTIFICIAL URIC ACID.

As the result of numerous experiments on artificial uric acid, and also on uric acid which was collected from urine which had been treated with hydrochloric acid, it was found that piperazine was capable of dissolving almost its own weight in urine, after the phosphates had been removed; but when stronger solutions than 2.5 per cent. were employed, an insoluble precipitate formed.

SUMMARY OF RESULTS.

1. Piperazine is not wholly oxidized in the body, and may be detected in the urine of those to whom it is exhibited.
2. Piperazine in solution of 1 per cent. in normal urine, when kept in contact at a temperature of 39° C. (body temperature) for a given time, has the property of dissolving to a great extent a fragment of a uric acid calculus.
3. That the stronger the solution of piperazine in urine (up to 7.5 per cent.) the earlier did the solvent action begin and the more rapid was the completion.
4. That, notwithstanding this, with the stronger solutions of piperazine in urine the rate of solubility was not so markedly rapid over the weaker solutions as might be expected.
5. *That the solvent action of piperazine in similar circumstances was greater than any other of the substances that were employed: viz., borax, lithium citrate, sodium carbonate and potassium citrate.*
6. That piperazine, in weak and strong solutions in urine, converted the undissolved portion of the calculus into a soft granular or pulpy condition.
7. That neither borax, lithium citrate, sodium carbonate, nor potassium citrate in similar circumstances, rendered the fragment of calculus soft or pulpy.

The report is made up in part by comparative tables of experiments, and these with the elucidating text, form a complete and conclusive argument in favor of Piperazine-Schering as an invaluable therapeutic agent in uric acid diathesis.

The favorable effect of piperazine treatment in diabetes mellitus has already been commented upon, and although it cannot be regarded as a cure it undoubtedly ameliorates the patient's condition. Dr. Gruber, of Professor Drasche's clinic in Vienna, describes a severe case of diabetes, passing urine containing 7.7 per cent. sugar, which was put upon piperazine. The patient received daily, for five weeks, 1 gram piperazine dissolved in soda water. At the end of that time the sugar had fallen to 4.03 per cent. and the improvement in the general condition of the patient was very manifest.

LYSOL IN OBSTETRIC PRACTICE.—Israelson (*St. Petersburg Med. Woch.*, No. 47, 1893) urges the use in obstetric practice of lysol as having greater antiseptic properties and a less poisonous action than any coal-tar derivative hitherto known. He uses a 1 per cent. solution for the skin, etc., and a 2 per cent. solution for instruments, this preparation being less milky than the former. No pains, but only slight burning sensations are produced by the use of either, and it has no irritant action of the skin. Owing to lysol forming a "lather" with water, it is a substitute for soap, rendering unnecessary the innuonction of the hands and the application of soap and water prior to operations. The author has tried lysol extensively during one year and a half with satisfactory results.—*Med. and Surg. Reporter*.

SALIPYRIN IN UTERIN HEMORRHAGE.—Kayser (*Deut. Med. Woch.*, October 29, 1893) has employed salipyrin in uterine hemorrhage from various causes, including cases of cancer and abortion. In three of the sixteen cases treated the bleeding was so free as to necessitate curetting, and in these it could not be stated whether a more prolonged use of the drug would have brought about the desired effect. In a case of myomatous endometritis it was given without results. In the remaining twelve cases it gave unmistakably good results. In two of these no examination was made, and the diagnosis was in doubt. Of the remaining ten, five were cases of metritis, two of stenosis of the internal os, with consecutive endometritis, one of inflammation of the appendages, one of old peritonitis and one of submucous fibroid. In all these the duration and quantity of the menses were diminished. Pain was not relieved by this drug. In four of the eight

cases the good effects were permanent, in one the hemorrhage resumed after the discontinuance of the drug and in three no further information was obtained.

The writer believes that salipyrin may be particularly useful in the hemorrhage preceding the menopause. The single dose was fifteen grains and the daily dose forty-five grains. It should be commenced at the beginning of menstruation or, preferably, the day before.—*University Medical Magazine*.

DR. UNNA'S PLASTER-MULLS.—By Horatio R. Bigelow, M.D. From the *Medical News*, September 23, 1893. Those physicians who are interested in dermatology, and are consequently familiar with the reputation and works of the eminent specialist, Dr. P. G. Unna, Director of the Heilanstalt für Hautkranke in Hamburg, will know that with Dr. Unna a favorite form for administering medicaments is the plaster-mulls. These plaster-mulls were originated by Dr. Unna, and have been used and favorably indorsed by many physicians, including such authorities as McCall Anderson, Janowsky, Robert M. Morrison, J. C. McGuire, Edward Borck, Chotzen, Bulkley and others. Plaster-mulls are an ideal improvement on the ordinary spread plasters; fine gauze is covered with the thinnest possible layer of gutta-percha, on which the medicament is evenly spread, properly dissolved in a minimum quantity of vehicle or base. The gutta-percha covers the skin-surface hermetically, prevents transpiration from the pores, and thus facilitates the deeper absorption of the medicament and enhances the specific therapeutic effect of the indicated remedy. The vehicle or base employed is non-irritant and a solvent of the remedy. Of the latter, an exact amount or dosage is added, and being perfectly dissolved, every particle of the ointment-surface will act equally; in other words, the plaster-mulls offer a sort of specific medication. A chief advantage besides this exact dosage is that the plaster-mulls are so thin, elastic and pliable, that they can be closely affixed to any portion of the body without cutting or patching. No artificial heat or other manipulation is necessary for applying these plaster-mulls; simply placing them on the surface requiring treatment, and holding them there for a moment suffices to firmly attach the plaster to the skin by virtue of the body-heat. While these plaster-mulls have come into extensive use in Europe, they have not been generally adopted in this country, principally for the reason that they have not been manufactured here, and the importation from Hamburg was connected with difficulties, loss of

time, etc. Recently, however, I have been enabled to procure a limited line of the most important medications of plaster-mulls, and I take early occasion to report my favorable opinion. The medications which I have used are as follows: Salicylic acid, each roll one meter long by 20 c.m. wide (about one yard long and eight inches wide) containing 10 grams, which amounts to about one-thirtieth of a grain of salicylic acid to the square inch of plaster-mull: Mercury, 20 gm. ($\frac{1}{15}$ gr.); Mercury 20 gm. ($\frac{1}{15}$ gr.) with carbolic acid 7.5 gm. ($\frac{1}{40}$ gr.); Zinc oxid, 10 gm. ($\frac{1}{30}$ gr.); Zinc oxid, 10 gm. ($\frac{1}{30}$ gr.), with tar 5 gm. ($\frac{1}{80}$ gr.); Thiol, 10 gm. ($\frac{1}{80}$ gr.); Resorcin, 15 gm. ($\frac{1}{30}$ gr.); Salicylic acid, 10 gm. ($\frac{1}{30}$ gr.), with creosote 20 gm. ($\frac{1}{15}$ gr.); Salicylic acid, 20 gm. ($\frac{1}{15}$ gr.), with creosote 40 gm. ($\frac{2}{15}$ gr.).

I have given up ointments almost entirely; they lack the neatness, elegance and efficacy of a well-fitting plaster-mull. The general physician will find plaster-mulls of great utility. In my own practice I am now employing these plaster-mulls wherever indicated, and it is my intention, in a subsequent communication, to furnish some clinical records confirming the good opinion already formed.—1716 Chestnut Street, Philadelphia.

THE REVIEW

OF

INSANITY AND NERVOUS DISEASE

A QUARTERLY COMPENDIUM OF THE CURRENT LITERATURE
OF NEUROLOGY AND PSYCHIATRY.

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JAMES H. McBRIDE, M. D.,
MILWAUKEE, WIS.

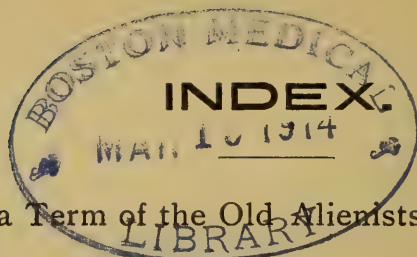
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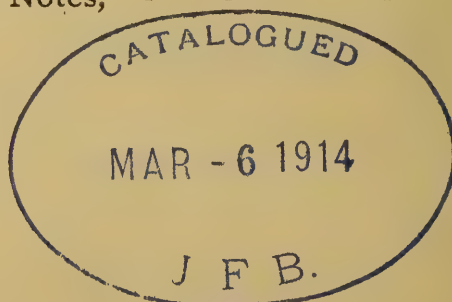
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INSANITY AND NERVOUS DISEASE.

FOR SEPTEMBER, 1894.

PARANGIA AS A TERM OF THE OLD ALIENISTS.

BY JAS. G. KIERNAN, M. D., CHICAGO, ILL.

Fellow of the Chicago Academy of Medicine. Professor of Nervous and Mental Disease, Milwaukee Medical College. Lecturer on Forensic Psychiatry, Kent Law School.

Paranoia appears as a term applied to one of the classes into which Hippocrates divided the insane. These were mania (excitement), melancholia (depression), paranoia (dementia in the French sense), and phrenitis. The term paranoia appears again in the classification of Vogel (1763) as applied to his ninth class, which included mania, melancholia and amentia. Subsequently Heinroth used the term (1818) in nearly its present sense. Hippocrates' use of the term as a synonym for dementia will hardly convey to the mind of the average English-speaking alienist the idea it did to the Greeks, albeit Hurd in 1881 designated by the term "dementia-monomania," the very class to which the term paranoia is applied. The clearest idea of the state to which Hippocrates applied the term paranoia, and the French, the term dementia, is given by Rush in his chapter on "Demence or Dissociation." He remarks: "Related to intellectual madness is that disease of the mind which has received from Pinel the name of "Demence." The subjects of it are said in

Scotland to have "a bee in their bonnet;" in the United States, to be "flighty" or "harebrained," or sometimes "a little cracked." I have preferred naming it from its principal symptoms, "dissociation." It consists not in false perception like the worst grade of madness, but of an association of unrelated perceptions or ideas from the inability of the mind to perform the operations of judgment and reason. The perceptions are generally excited by sensible objects, but ideas collected together without order constitute a paroxysm of the disease. It is always accompanied with great volubility of speech or with bodily gestures, performed with a kind of convulsive rapidity. We rarely meet with this disease in hospitals, but there is scarcely a city, a village or a country place that does not furnish one or more instances of it. Persons who are afflicted with it are good-tempered and quarrelsome, malicious and kind, generous and miserly, all in the same day. In a word, the mind in this disorder may be considered as floating in a balloon and at the mercy of every object and thought that acts upon it. It is constant in some people, but it occurs more frequently in paroxysms and is sometimes succeeded by low spirits. Hysteria consists in mobility of the nervous and muscular system. Dissociation seems to be occasioned by a similar mobility of that part of the brain which is the seat of the mind."

The introduction of the term into the psychiatry of the English-speaking countries was due to Spitzka,* who, in a paper read before the American Neurological Association, was the first to use the term which Kahlbaum† had employed as a synonym for the German term *primäre verrücktheit*. Five years later it was employed by Clevenger‡ in its present significance.

The term at present is used especially by the Germans as loosely as it was used by Vogel over a century and a quarter ago.

*Journal of Nerv. and Ment. Dis., 1878, p. 532.

†Klin Abhand. 1874.

‡Chicago Med. Jour. and Ex. 1882-3.

One decided blot on German psychiatry is the confounding of acute confusional insanity—with paranoia in the period of transformation. There is but a superficial resemblance between these states; the hallucination is primary in acute confusional insanity; consecutive in paranoia.

The disgraceful testimony given in the Prendergast case anent the term paranoia deserves a little attention. One prosecuting "expert" (a surgeon) swore that Spitzka invented the term at the Guiteau trial. Another prosecuting "expert" contradicted him stating that Dr. Clevenger invented the term in 1883. Ignorance of the history of psychiatric terms was never more signally demonstrated.

THE HOT SPRINGS OF SOUTH DAKOTA AS A RESORT FOR NERVOUS PATIENTS.

BY HENRY M. LYMAN, A. M., M. D.

Professor of the Principles and Practice of Medicine, Rush Medical
College, Chicago.

The great value of electricity as a therapeutical agent in the treatment of nervous diseases has been long recognized. But the greater value of hydrotherapy in the same class of diseases has been not yet so fully acknowledged in America. This difference is largely due to the lack of apparatus that can be used easily by the physician. So long as electricity was furnished chiefly by the Kidder and Stohrer batteries of the last generation, few were willing to encounter the inconveniences attendant upon their use. But, with the improvements that render all forms of electricity promptly and easily accessible in any physician's office, the therapy of disease has been greatly improved. So will it be with the employment of water as a therapeutical agent. It is useless to extol the method of Brand when treating typhoid fever in a hovel where water is furnished only in tin cups and copper wash-basins. It is useless to praise the "water-cure" in the presence of a patient who can find no retreat where it can be employed. Unlike Europe, which abounds in springs and sanatoria and water-cure establishments, America is only beginning to learn the possibilities of its undeveloped resources of this character.

The employment of water in the treatment of nervous diseases is nothing new. The bracing influence of cold baths, cool sponging, and friction of the skin in the open air, is something with which we are all familiar. The stimulant effects of hot water are perhaps less widely recognized. The soothing influences of warm baths must be experienced in

order to be fully appreciated. Not many physicians, I fear, are fully informed as to the utility of massage and muscular movement in connection with such baths. But, with the increase of facilities of this sort, the members of the American medical profession will soon become as familiar with these particulars as their European brethren.

Beyond the simple methods above mentioned it is useless to expect much in the way of hydrotherapy at home, though it is possible to derive much benefit from simple sponge baths and hard towelling in all cases of debility and languor, attended with nervous dyspepsia and anaemia. The soothing influences of tepid tub-baths are also within the reach of many who reside in the city. But the full effects of a perfect water-cure can only be obtained at a well equipped sanitarium where the patient is at the same time removed from the vicious circle of home influences, and is subjected to a methodical and sufficiently prolonged course of treatment. Especially useful and successful is such a course when it is accompanied by a radical change of climate in a region where the environment is novel and agreeable. For these reasons the majority of the successful sanatoria of the world are to be found in mountainous regions not too far removed from civilization. The numerous springs and water-cure establishments in Europe owe a large part of their success to the fact that they are accessible, are placed amid splendid mountains and verdurous hills, and are surrounded by everything that can gratify the senses or minister to comfort.

These qualities are becoming every year more apparent in the health resorts of America. Among the mountains of New England and New York, and upon the slopes of the Alleghanies are numerous delightful retreats where the jaded citizen can find rest, and can enjoy the advantages of balneotherapy under the most favorable circumstances. But west of the great lakes the conditions are not so well adapted to the wants of the invalid. Throughout the vast expanse of nearly level land that is watered by the sluggish current of the Mississippi and its affluents, there are very few springs

that deserve the term *medicinal*. The climate is characterized by a widespread uniformity; and the scenery is monotonous to the last degree. The environment that adds so much to the efficiency of balneotherapy is utterly lacking, and can never be acquired by the sanatoria that have been here and there established under these unfavorable conditions. The instinctive longing for radical change that actuates the invalid has, therefor, driven the inhabitants of the valleys of the Mississippi and the Missouri to explore the distant mountains of the Southwest and West in search of health retreats where can be enjoyed those favoring conditions that do not exist upon the sun-beaten and wind-driven prairies of the central region of our country. The Hot Springs of Arkansas have been long known, and have until quite recently enjoyed a monopoly of patronage, despite the fact that their waters are not mineralized, but are only thermal. It is the mild climate, the change of scene, and the warmth of the water that act therapeutically—nothing more. The splendid hot spring at Glenwood, Colorado, which I have described elsewhere (*The Medical Record*, Dec. 5, 1893), possesses positive mineral qualities, and is a most admirable resort for syphilitic and arthritic patients who are not, by the great distance of the spring from the centers of population, prevented from visiting its source. More accessible are the hot springs of South Dakota, situated in the town of Hot Springs in the southern portion of the Black Hills—that remarkable cluster of mountains that rise like islands out of the prairies of Southwestern Dakota. Long known to the Indian tribes who hunted in that region, the thermal and mineral qualities of the water were highly appreciated by the aboriginal inhabitants, who were wont to resort thither for the healing of their ailments. This wholesome reputation continued to prevail among the trappers and miners who succeeded to the Indian occupation; and now the completion of two lines of railway from Chicago, Omaha and Milwaukee have brought these valuable springs almost to our doors. The valley in which they flow is furrowed in the sedimentary rocks that were formed by the wash

of the primitive rocks that constituted the nucleus of the original uplift that raised the Black Hills. Its soil is consequently filled with minerals that were dissolved from those rocks and incorporated with the sandy sediments that were deposited around the coasts of the ancient island. Later upheavals and the consequent recession of the primeval ocean, have laid bare all these deposits; and the descending rain that filters through the soil nourishes the springs that are warmed by the rocks that have not yet parted with all the heat that was liberated by the original convulsion within the crust and substance of the globe. A perennial flow of water at a temperature of 95° F. is thus maintained, so that water-cresses flourish and fishes swim all the year round in the stream that supplies the numerous baths. A large hotel and bath house have been reared over the original spring, and the cavity in which the Indians formerly bathed is still used as a bath tub. But, during the last three years, new hotels and bath houses have been erected, and a town of twenty-five hundred inhabitants has grown up along the banks of the little river of hot water. A special structure covers the immense plunge bath—a basin 75x250 feet, and from three to nine feet in depth. This is supplied with warm water bubbling from the springs at the rate of 100,000 gallons per hour. Though not as large as the famous pool at Glenwood Springs, it is said to be the largest plunge bath in the world that is under the cover of a roof. Lighted with electricity at night, and open at all hours, it is one of the most attractive baths that can be imagined. By chemical analysis the water has been found to contain in every gallon :

	Grains.
Sodium sulphate	23.2628
Potassium sulphate.....	5.6272
Calcium sulphate.....	36.1125
Calcium chloride	5.5887
Ammonium chloride	0.0261
Magnesium chloride.....	4.1144
Magnesium nitrate.....	0.3024

Magnesium phosphate	0.0996
Magnesium carbonate.....	3.5057
Iron sesquioxide.....	0.1490
Alumina.....	0.2710
Silica.....	1.5483

The water of the adjacent springs differs only in the degree of saturation with calcium sulphate, some containing more and some less of that salt. These waters are, therefore, strongly diuretic, and their external use is delightfully detergent, giving to the skin a satin-like smoothness and softness. For this reason they are admirably adapted to the treatment of all cutaneous disorders, and for the relief of diseases that are accompanied by a sluggish state of the bowels and kidneys. The warmth of the water also renders it possible to take long-continued and frequently repeated baths, with a profoundly soothing influence upon the nervous system. In the plunge bath, the great amount of muscular exercise that accompanies the act of swimming is an important factor in the treatment of rheumatic, myalgic and nervous affections. We too often ignore the fact that mere immersion in warm water is one thing, while immersion together with active exercise (massage or swimming) in warm water is quite another affair. Hence the failure to obtain benefit from a course of simple tub-baths that is so often experienced.

The climate of Hot Springs should be also taken into consideration. The town is situated upon the southern declivity of the Black Hills, in a valley that is protected from the blasts of winter, and from the storms of summer. The atmosphere is dry and bracing; the elevation (3700 feet) above sea level is not so great as to produce the "nervousness" that is so frequent a cause of complaint among the Rocky Mountain resorts, while it is at the same time sufficient to insure that purity which characterizes the upper levels of the earth's surface. As I have elsewhere remarked, when we take into consideration the ease of access, the comfortable accommodations that are provided at moderate cost, and the healing properties of the mineral waters, it is evident that

the Hot Springs of South Dakota afford opportunities for rest, recreation and recovery of health that are not surpassed by any similar resort in the country. To physicians who are seeking for their patients a location that shall combine the advantages of northern and southern climates, eastern and western levels of elevation, attractive scenery and the comforts of civilization associated with social simplicity of life, this place can be most confidently recommended.

TRANSLATORS AND ABSTRACTORS.

ENGLISH.

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NEUROLOGICAL.

ANATOMY AND PHYSIOLOGY.

FUNCTIONS OF THE ASCENDING PARIETAL CONVOLUTION.—Bonnier claims (*"Revue Internl. de Med. et de Chir. Pratiq,"* Sept. 10, 1894), that the ascending parietal at least in its inferior two-thirds is the vestibular perception centre, furnishing the images of attitude indispensable to motor ideation, holding under its dependence the centers of coördinated and automatic motricity situated lower down.

J. G. KIERNAN.

THE CEREBRAL OPTIC CENTRE.—Henschen, (Internat. Congress, Rome, *Rivista Sperimentale* XX., p. 274,) on the basis of a series of clinical and anatomical researches, came to the following conclusions:

1. A lesion of the parietal lobe does not cause hemianopsia, except when the optic bundle of the inferior part of the optic radiation is involved.

2. Hemianopsia is caused only by lesions of the regions of the calcarine fissure and of the fibres that unite this fissure with the external geniculate body.

3. The centre for color coincides with that (calcarine region) of luminous impressions, in this centre is a projection of the retina, a sort of cerebral retina, in which the macula lutea is situated more to the front, the peripheral field in the horizontal meridian is more posteriorly. Each half of the macula lutea is innervated from each hemisphere.

H. M. BANNISTER.

THE FUNCTIONS OF THE FRONTAL LOBES.—Bianchi, (Internat. Congress, Rome, *Rivista Sperimentale* XX., p. 262,) reported results of his investigations on the frontal lobes. After examining the results of his predecessors, Hitzig, Ferrier, Munk, Horsley and Schafer, he stated his own results from the extirpation of these parts in dogs and a monkey. He offered the hypothesis that the frontal lobes are the

organs for coördination of the sensory and motor functions of other cortical regions. They combine in order, on the one hand the products of the cortical neurones of sensation and motion, and, on the other, all the separate emotional states that accompany each perception, from which fusion arises what we may call the psychic tone of the individual. The extirpations of the frontal lobes produces disaggregation of the personality and of the capacity of forming ordered groups of images and representations. With the disappearance of the organ of physiological fusion we have the loss of the anatamico-physiological basis of judgment. The restlessness and motor incoherence of animals whose frontal lobes have been removed depend on the resolution of the nervous wave provoked by actual impressions traversing the minor psycho-motor arcs, through the lack of antecedently accumulated psychic coefficients. The immediate effect of the psychic disaggregation is a failure of the sensation of one's own personality and of perception and judgment. Courage is also lost, and the impulsion observed in certain idiots and insane epileptics is not to be mistaken for it. Affection, social instincts, etc., are weakened or lost as the grosser appetites are proportionally increased. The dementia extends to the sexual life, and the character and psychic personality are generally obliterated.

Prof. Bianchi presented, in support of his views and for the examination of the Congress, a monkey, in which he had extirpated the frontal lobes. This was referred to a commission consisting of Profs. Hitzig, Tamburini, Mendel, Pitres, Sciamanna, Sergi, Kurella and Mingazzini, and in their report, given at a subsequent session, they say: From the physical and psychical examination of the monkey, the autopsy of which has shown an extensive ablation of the anterior portion of the frontal lobes, it does not appear to have undergone a great change in its personality, having preserved its agility, sight, and hearing; also its chief instincts and the ability to control them; but within this it revealed a psychic state below the average of its species, due to insufficiency of perceptions and resulting deficiency of discernment. But we do not claim that a lengthened examination, especially with comparison with other sound individuals of the same species, might not reveal greater disturbances, especially in the psychic sphere.

H. M. BANNISTER.

THE CORTICAL AREA, THE SUBCORTICAL PATHWAYS AND THE COORDINATION CENTER FOR MASTICATION AND DEGLUTITION.—As a result of numerous experiments on rabbits, of

a careful review of literary and of clinical observations, Dr. L. Rethi, of Vienna, concluded that irritation of a definite cortical area situated externally and anteriorly to the centers for the extremities, produces masticatory movements, followed, as a rule, by deglutition. These movements can be originated in either hemisphere; they are co-ordinated and properly combined and are not simple tonic contractions of single muscles, particularly those of mastication. The fibres, which, when irritated, produce mastication and deglutition, pass from the cortex inward and downward through the lower part of the internal capsule. Irritation of any part of the course of these fibres produces the same succession of co-ordinated movements, the center for which is in the region of the optic thalamus, for after separation of this area from the fibres, irritation is followed only by a simple contraction of the masticating muscles without tongue and lip movements and without deglutition. (*Wien. Med. Presse*, No. 25, 1894.)

R. W. ROHRDANZ.

THE SITUATION OF THE TROCHLEAR NUCLEUS.—Dr. W. Kausch believes the nucleus described by Westphal as the nucleus ventralis posterior to be the true trochlear nucleus. It is the only one of the three named by Westphal to which nerve fibres can be traced. Westphal's posterior small-celled nucleus K. considers as a collection of ganglion cells of the central gray matter. Westphal's main trochlear nucleus is, according to Kausch, not a motor nucleus at all, very few, if any, fibres being observed in it. (*Neurolog. Centralbl.*, No. 14, 1894.)

G. J. KAUMHEIMER.

A PALMAR REFLEX.—Dr. L. Stembo describes a reflex to which his attention was called by Dr. Dembowski. The latter observed that when pressure was made over his pisiform bone, a retraction of the skin at the ulnar border of the hand resulted. This is due to several muscular slips which arise from the edge of the palmar aponeurosis and are lost in the skin on the ulnar side of the hand. Dr. Stembo examined over 200 persons for this reflex and found it could be produced not only by pressure over the pisiform bone, but also over the eminentia carpi ulnaris and over the tendon of the palmaris longus near the carpal ligaments. In some persons, a stroking of the ulnar border of the hand will produce it. The reflex varies from a single quick jerk to a tetanic contraction lasting from 4 to 15 seconds. He found it present in from 70 to 80 per cent. of the persons examined. It is not

rarely present on one side only and then is most frequently found in the left hand. It is most frequently absent in laborers. In children it is absent in half the cases. He suggests the name of Dembowski's reflex for this phenomenon. (*Berlin. klin. Wochenschr.*, No. 15, 1894.)

G. J. KAUMHEIMER.

THE COURSE OF FIBRES IN THE BRACHIAL PLEXUS.—Dr. Johannes Müller reports a case and sums up the result of his clinical observations and a review of the literature as follows: A lesion of the two last roots of the brachial plexus causes a paralysis of the motor and sensory nerves of the lower arm and hand, the nerves of the upper arm and shoulder remaining intact. This condition can only be explained by assuming that the lowest roots contain fibres for the peripheral parts of the arm only. (*Deutsch. Zeitschr. für Nervenheilkunde*, Vol. V., No. 2, 3, 1894.)

R. W. ROHRDANZ.

TROPHIC CENTERS.—Goldscheider discusses our knowledge of this subject. He adopts and amplifies the theory of Marenisco as follows: The ganglion cell is of primary importance in preserving the integrity of the axis-cylinder arising from it, together with its terminal ramifications, that is, of the entire neuron; but cannot fulfill this function permanently unless its activity is excited by functional stimuli. These stimuli, he adds, need not necessarily come from the periphery, but may come from a higher center. This theory, he believes, will best explain the phenomena observed after amputation, where the trophic centers themselves are found changed, if a long enough time elapses after the amputation. It is not certain whether the axis cylinder obtains through the ganglion cell a nutritive material, or requires its influence only to regulate its metabolism. The author deems it, probable that the cell supplies the fibre directly with a material, probably of the nature of a ferment. Goldscheider also points out that all the nerves, sensitive as well as motor, are being constantly traversed by stimuli, the greater number of which are below the limit of conscious perception. We need only recall the vast number of sensory impressions, mainly unnoticed, proceeding from the skin, and the equally unnoticed motor impulses involved in the maintainance of equilibrium, respiration and other functions.

He attempts to explain the occurrence of atrophy after cerebral lesions as follows: The lesions followed by atrophy

are probably situated so as to interrupt the paths leading to the centers of motor perception and motor innervation; consequently a large number of unconscious reflex impulses are lost. If the pyramidal tract be totally interrupted no atrophy results, as in that case the spinal reflex impulses are increased, compensating the loss of the cerebral impulses. In cases of cerebral atrophy, no demonstrable changes occur in the pyramidal tracts. (*Berlin. klin. Wochenschr*, No. 18, 1894.)

G. J. KAUMHEIMER.

PATHOLOGY AND SYMPTOMATOLOGY.

RECENT PROGRESS IN NEUROLOGY.—The eminent Dr. B. Sachs recently made a very excellent address to the American Neurological Ass'n, the address being an epitome on recent neurological progresses. For years past the neuro-clinicians and neuro-pathologists have worked hand in hand and have developed our knowledge of systemic diseases of the brain and spinal cord.

During the past twenty years many of the greatest clinicians have won laurels in neurology, such as Charcot, Hughlings Jackson, Leyden, Kussmaul, Nothnagel, Erb, Strümpell, Lichtheim, Leube and others.

Clinical investigation has wrought good work in the recognition of cerebral diseases, and in spinal cord diseases accurate clinical investigation alone, supported by researches in morbid anatomy has led to great precision in the distinction between the various forms of myelitis. It has placed syringo-myelia, amyotrophic lateral sclerosis, and syphilis of the spinal cord on a par with the best known spinal cord affections.

In the domain of peripheral and functional diseases important advances have been made in the recognition of the association of these troubles with constitutional diseases, such as diabetes and phthisis and their relation also to organic and inorganic poisons.

The careful microscopical studies of Golgi, Ramon y Cajal, Kölliker and others has developed the idea of the neuron, thus producing a far-reaching influence over the study of nervous diseases in the future.

It is nothing new to think of the ganglion cell as a nutritive center for the white fibre connected with it and to know that this white fibre is apt to undergo disintegration if separated from its nutrient cell; but it is new to learn that the entire nervous system is made up of such units of nerve structure

consisting of a nutritive cell, of the white fibre that emanates from one process of this cell, and of its termination in brush-like fashion. It is new, too, that these units are connected with one another not by direct contact, that the terminal arborizations approach one another without actually coming in contact, and that these neurons connect the white and gray matter, and pass freely from one to the other, or may exist even within the gray matter alone.

The acceptance of "neuron diseases" will help us to better understand the degenerations which follow disease of the gray matter, whether it be in the cortex or in the spinal cord, and also the development of systemic disease of the spinal cord, the origin of which we could not explain.

Physiologists have taught that there is no such thing as primary degeneration of the white fibres, and later anatomical researches compel us to extend our studies of all systemic diseases of the gray matter with which these white tracts are directly or indirectly connected. The conception of the neuron points to the fact that, through the gray matter of the cord, the anterior nerve roots, and the peripheral nerves—not to mention the muscular fibres to which the nerve is distributed—are far apart in an anatomical and physiological sense, they practically constitute a nerve unit, which helps to understand why in cases of toxic poisoning, as by lead, for instance, the poison in some persons produces a form of multiple neuritis and in others a distinct myelitis of the gray matter of the cord, and in still others a combination of neuritis and myelitis. Dr. Sachs concludes his address by urging the great need of larger clinical opportunities, and the establishment of laboratories in connection with clinical service for the advanced study of the normal and morbid histology of the entire nervous system. (*N. Y. Med. Jour.*, Sept., 1894.)

T. W. BISHOP.

RECENT PROGRESS IN NERVOUS DISEASES.—A very excellent paper from the pen of Dr. W. A. Jones, bearing the above title, appears in the *Northwestern Lancet* of May 15, 1894. A review of the literature on this subject shows that interest in nervous diseases is fast increasing. Bacteriologists are investigating the various infective diseases which may lead to inflammatory degenerations in the nervous system, such as chorea, epilepsy, meningitis, poliomyelitis, etc. Goltz, from his experiments, denies the existence of a definite motor or sensory area in the cortex of the cerebrum, believing it to be only the seat of higher physical functions. Goltz has removed the entire cerebrum without killing the dog,

which lived for eighteen months. The dog slept naturally, could be awakened by loud noises, could bark, blindness was not complete, sensation of taste, hunger and thirst were retained. Bechterew and Troja demonstrated experimentally that a center for the bladder and rectum exists in the cortex in the supra-marginal convolution. Dr. A. Sarbo locates the center for the bladder, rectum and for erections in the sacral segment of the cord. A. M. Patterson, in dissecting nerves, uses a 5-10 per cent. nitric acid solution which dissolves the connective tissue and hardens the nerve.

Tabes.—The pathogenesis of tabes is still uncertain. Syphilis is looked upon as an important and frequent cause. Most authorities agree that the disease begins primarily in the nerve roots, from an invasion of vascular supply, either from an arterio-sclerosis or a meningitis subsequently followed by a sclerosis of the connective tissue of the cord. There has also been found a twisting with degeneration of posterior nerve roots, probably due primarily to meningitis, with compression and subsequent degeneration.

Epilepsy.—Diller's recent paper on epilepsy divides that affection into motor, sensory and psychical and does not approve of the term "psychical equivalent." Medical treatment of epilepsy still vacillates. Flechsig administers opium for about six weeks, the dose being $\frac{1}{8}$ to 1 gr. at first and increasing to 10 or 15 grs. daily, then suddenly stops and changes to bromides. Borax is frequently used in from 15 to 20 gr. doses two or three times a day. Bromide of strontium in from 20 to 30 gr. doses is beneficial—used at Johns Hopkins' Hospital.

Chorea.—Dana has found one case of meningitis of the convexities with the usual connective tissue proliferation; diplococci found in the membranes and cortex with degeneration, hyaline bodies and gross lesions in other parts of the brain and cord. For treatment Wood proposes saturation with quinine. Fluid extract of gelsemium has been found useful in three or five drop doses.

Idiocy.—Bourneville classifies idiocy as symptomatic of hydrocephalus, arrested development, congenital or pathological malformation of brain, meningitis, sclerosis, both atrophic and hypertrophic, and cerebral tumors, the following conclusions being arrived at: 1. Surgical treatment of idiocy rests upon an hypothesis not substantiated by pathological anatomy. 2. Premature ossification of the sutures does not often exist. 3. The lesions which cause idiocy are usually profound, extensive and varied and not influenced by craniectomy. 4. We can not diagnose premature ossification of the skull. 5. The results of operations are negative, slight

or doubtful. 6. The treatment is combined medical, hygienic and kindergarten measures.

Brain Tumors.—Without definite localizing data an exploratory entrance into the cranial cavity to relieve intracranial pressure seems now justifiable.

Animal Extracts.—The use of the animal extracts has been reported as both successful and unsuccessful and many consider reported improvements as due to suggestion.

Aphasia.—When due to inflammation and softening it is permanent. The transient forms are due to biochemical lesions often associated with right facial paralysis and vaso-motor disturbances which last for a few days and disappear.

Spinal Syphilis.—Gerhardt says the disease is characterized by progress, agreeing with others that it begins in the vessels, then membranes, and lastly the cord. Many cases develop within three months, may be either ascending or descending.

Oculo-motor Paralysis.—The etiology and diagnosis by Dalichow is as follows: 1. Hemorrhage, in which other paralysees are associated; from embolism, paralysis may be confined to single branches; with thrombosis of the cavernous sinus, paralysis of the fourth, sixth and ocular branch of the fifth accompanies the oculo-motor paralysis. 2. Syphilis, the more frequent cause, usually partial and a late symptom, on account of the long branch of the nerve as it traverses the skull. 3. Tuberculosis. 4. Partial, from hyperaemia, cell proliferation, or exudation. 5. Infectious diseases. Among other causes are diphtheria, rheumatism, influenza, meningitis, intoxication, nicotine and meat poisons, spinal sclerosis, exophthalmic goitre, tumors, aneurisms and trauma.

Therapeutics—Exophthalmic goitre: ergot, bromide of zinc, digitalis and electricity. Migraine is best treated by 15 or 20 drop doses of cannabis indica; infantile tetanus by small doses of salicylate of soda; periodic neuralgias by fluid extract of ergot.

T. W. BISHOP.

POLIOENCEPHALITIS HEMORRHAGICA SUPERIOR.—Dr. Jacobäus closes a report of his own case and nine cases from various authorities as follows: Peripheral neuritis cannot be separated from morbid changes in the central organs. We believe with Strümpell that the same toxine can produce destructive processes in various parts of the nervous system. In alcoholic nervous diseases we often find typical peripheral changes. But the frequent co-existing psychical disturbances show that the central nerve organs are also affected. In other cases we find in addition to the peripheral disturbances, changes in the medulla spinalis and the oblongata.

Notwithstanding that in general, the peripheral disturbances are the principal changes, we must admit that alcohol causes isolated changes in the medulla spinalis or in the oblongata without affecting the peripheral nerves. (*Deutsch. Zeitschr. für Nervenheilkunde*. Vol. V., No. 4, 5, 1894.)

R. W. ROHRDANZ.

CEREBRAL DISTURBANCES FOLLOWING SEVERE ATTACKS OF PAIN.—Dr. Laquer reported the following cases at a meeting of the Southwestern German Alienists and Neurologists:

Case I. A railroad engineer, aged 54, suffering from supra-orbital neuralgia, was subject to psychical disturbances in the form of delirium, which disappeared when the pain ceased. Attacks occurred four to five times daily. Cure of the neuralgia prevented further psychical disturbances.

Case II. A 20-year-old nervous woman, subject to attacks of prosopalgia, was delirious during the acme of each attack. She always awoke with amnesia. Slight pain persisted for a short time after each attack. All mental symptoms disappeared when neuralgia was relieved.

Case III. In a 27-year-old man, suffering fourteen days from supra-orbital neuralgia, aphasic disturbances lasting several days and sometimes paraesthesia of the opposite side were manifested. No recurrence after relief from neuralgia. (*Wien. Med. Presse.*, No. 26, 1894.)

R. W. ROHRDANZ.

THROMBOSIS OF THE CEREBRAL ARTERIES.—Dr. Fisher states that the most common causes of thrombosis of the cerebral arteries are atheroma and syphilitic endarteritis. In atheroma the large vessels at the base are especially involved, but on closer examination the smaller vessels, if traced up beyond the Sylvian fissure, would be found to have rigid walls which had lost their elasticity and were therefore subject to temporary interference with the course of the blood through them. In syphilitic endarteritis the smaller arteries and capillaries were involved to a greater degree than in atheroma. It is not an uncommon experience, especially in syphilitic endarteritis, to see a hemiplegia entirely clear up, leaving little if any trace, by secondary changes, of the previous interference with the cerebral circulation. He found the same condition not infrequently in atheromatous conditions in old people. The most rational explanation seemed to be that there was a temporary occlusion or stasis, which in the diseased state of the vessel walls permitted of a localized serous exudation. (*N. Y. Med. Jour.*, June 2, 1894.)

B. M. CAPLES.

LEFT HEMIPLEGIA, HEMIANAESTHESIA AND HEMIANOPIA FROM SOFTENING.—Beevor records (*The Lancet*, May 5, 1894,) the case of a woman 69 years of age who acquired after an attack the following symptoms: Slight left hemiplegia, some loss of sensation of the whole of the left half of the body, including the trunk, head and limbs of left side and left hemianopia. Whether all these symptoms come on simultaneously as the result of her paralytic attack is not certain. Lesion of the following parts, according to Beevor, may give rise to hemiplegia, viz: the cortex, the internal capsule and the crura cerebri.

The question of diagnosis in this case resolved itself into (1) the particular part of the brain affected and the area over which the lesion probably extended; (2) the nature of the lesion, whether hemorrhage from an artery, blocking of an artery by thrombus or embolus, or a tumor.

The diagnosis in this case was considered to be softening, due probably to the blocking of a vessel and not to hemorrhage, the blocking being probably due to a thrombus. Beevor concludes by emphasizing the importance of a careful examination of the symptoms as soon after the attack as possible; of the anatomical localization of these symptoms in the brain, of the relation of the extent of brain affected to account for symptoms, with the absence or degree of unconsciousness, taking into account that with an extensive lesion and very slight loss of consciousness the cause could not be hemorrhage.

T. W. BISHOP.

CEREBRAL PALSY OF CHILDHOOD FOLLOWING DIPHTHERIA.—Dr. C. W. Sharples reports a case of post-diphtheritic palsy occurring in a boy 13 years of age. Patient became suddenly paralyzed upon the entire right side, this side being the seat of tremors that shook the entire body; the skin was extremely hypersensitive, tendon reflexes absent and speech was wanting. Motion began to return in about five weeks, speech very gradually returned.

Most post-diphtheritic palsies are considered as cases of local peripheral neuritis, while Dr. Sharples presents this case to show that these cases frequently have an overlooked and centrally located pathology.

One observer has found in the substance of the cord colonies of the same germs as exist in the membrane of diphtheria, and the nerve sheaths have also been found infiltrated with the same germs. In one case in which the latter condition existed, the brain contained a number of infarcts. (*Medical News*, Aug. 4, 1894.)

T. W. BISHOP.

DIAGNOSTIC VALUE OF THE HEMIOPIC PUPILLARY REFLEX.
 —Rothmann believes this symptom to be of some value in diagnosis and concludes as follows: 1. If this reflex is found immediately in an acute case of hemiopia and persists, the lesion is located at the base, near the optic tracts. 2. If the hemiopic reaction occurs in the beginning of an apoplexy with hemiopia and gradually disappears, it is due to remote action. The lesion is beyond the origin of the reflex fibres, but probably not above the internal capsule. 3. If this reflex is absent in a case of hemiopia we may conclude, with great probability, that the lesion is located above the origin of the reflex arc. Whether it is in the capsule or the cortex the accompanying symptoms must decide. 4. The late and faint appearance of this reflex in a case of hemiopia indicates secondary degeneration of the optic tract following a higher lesion. 5. Hemiopic pupillary reaction without hemiopia indicates a lesion between the corpora quadrigemina and the iris. (*Deutsche Med. Wochenschr.*, No. 15, 1894.)

G. J. KAUMHEIMER.

CEREBELLAR TUMOR—FAILURE OF RESPIRATION.—J. F. Alkins presents (*Brit. Med. Jour.*) a case of cerebellar tumor to which he was called, finding patient in state of coma, respiration ceased, but heart still beating (140 per minute). Artificial respiration was continued for three hours and a quarter, when respiration again commenced. In a few days patient was able to walk and was as well as before onset of coma; but died eight weeks later from asthenia and cerebellar tumor of left lateral lobe, as verified by post mortem.

T. W. BISHOP.

SUBACUTE UNILATERAL BULBAR PALSY—Dr. Alfred Wiener reports the case of a patient who, up to within two years of examination, had been in good health. Had suffered from catarrhal pharyngitis since childhood; two years ago the glands on both sides of neck in region of sterno-cleido-mastoid muscles began to enlarge, later abscess formed in one of these glands on right side, still later some of the glands were removed; glands examined by Dr. Stieglitz and found to be tubercular; later patient had some trouble in swallowing, became hoarse and coughed with difficulty. Examination brought out the following points: 1. Marked deviation of tongue to right when protruded. 2. Distinct atrophy of middle right half of the tongue; it appeared shriveled and when taken between the fingers had a decided spongelike feeling. Electrical

examination, response to direct faradaic excitation on the right side much weaker than on left side; contractions not as prompt and sudden as in normal muscular tissue; increased galvanic excitability of right side, the contractions being of a slow and wave-like character. When the mouth was held open and patient breathed in a quiet manner, raphe of soft palate pulled toward left side together with elongated and slightly thickened uvula. Left arcade smaller than right, which hung down with lower edge farther than left. The right arcade appeared broad and smooth, left was drawn into longitudinal folds. When asked to phonate "ah," paralysis became more evident and whole palate looked very much deformed; deglutition difficult; solid food taken much more readily than liquid. Sometime later patient had an attack of respiratory failure from which he partially recovered and a month later had a second attack from which he died. Post mortem showed the following: Slight degeneration in the ganglion cells of the ninth nerve; the column known as the respiratory bundle appeared almost completely degenerated; outer part of the respiratory column seemed to be affected by the degeneration; degeneration on the right side of vagus, hypoglossal, and vago-accessorius nuclei, together with the completely diseased respiratory column; the ganglion cells, very much diminished in numbers, abnormally rounded and but few cell processes left. In summing up the facts of the microscopical examination he found the nucleus of the twelfth nerve on the right side very much diseased, on the left side only to a slight degree. The nuclei on the tenth, eleventh slightly affected, more on right side than on left. Respiratory bundle appeared completely degenerated on the right side while on the left, in the region of the hypoglossal nucleus, only its lower and outer portions were diseased; with some other slight degenerations. The author considers the hypoglossal nucleus as the actual nucleus of origin for the supply of the tongue, palate, pharynx and right recurrent laryngeal nerve; also that the nuclei for the glosso-pharyngeal nerve which were diseased in this case at the beginning must undoubtedly take their origin together with the vago-accessorius in this region and then ascend in the respiratory column to the glosso-pharyngeal region and make their exit with that nerve. (*Brit. Med. Jour.*, July 14, 1894.)

B. M. CAPLES.

TUMOR AFFECTING THE RESTIFORM BODY.—Recorded in *The Lancet* is an excerpt from an article of Brissaud's in which he describes the case of a woman of 45 years, who slowly developed deafness of the left ear, and later sight of both eyes

became affected. *Tic convulsif* of the left side of face was soon superadded and some years later, pain over the sacrum, weakness of legs, stiffness and pain in cervical region were experienced; soon loss of smell came on; transitory oedema noticed and soon unsteadiness in walk. Later an attack of loss of consciousness lasting an hour came on and retraction of the head and opisthotonos were frequently present; reflexes not affected, upper extremities normal; optic neuritis present and difficulty in swallowing occurred.

A necropsy confirmed the diagnosis, revealing a tumor which involved the cerebellum, but had apparently commenced in the upper and outer part of the restiform body and had involved the auditory nerve at its exit from the skull.

T. W. BISHOP.

PSEUDO-BULBAR PARALYSIS.—At a recent meeting of the Vienna Medical Club Dr. Jellinek reported the following two cases: 1. Patient, male, aged 61, had syphilis 20 years previous. In 1885 he was suddenly attacked with all symptoms of apoplexy. Similar attacks with and without loss of consciousness and followed by hemiparesis of either the right or left side, occurred frequently. Since the first attack there was disturbance of speech, flow of saliva and weakness of the left extremities. Intellect was impaired, memory poor and emotional changes frequent. There was bilateral paresis of the lower facial nerve; also nasal bulbar speech with dysphagia. Muscles of tongue and lips were not atrophic. Electrical reactions normal. Movement of right arm executed with difficulty, accompanied by a tremor. Both lower extremities were weak; no sensory or vesical disturbances. There was a very pronounced arterio sclerosis. Patient died in an apoplectic attack. Microscopical examination showed degeneration of the left pyramid near the decussation; the right pyramid showed an increase of gliomatous tissue. On a level with the hypoglossus nucleus, the right pyramid was totally atrophic, the left normal. The left restiform and olivary bodies were slightly degenerated, exhibiting a swelling of the axis cylinders and an increase of gliomatous tissue.

Case II. Pat, aged 51, completely demented, suffered from cutting pains in the epigastric region; also from vesical disturbances and complete dysphagia. Facial expression was fixed; voice monotonous and nasal, articulation defective. Mechanical irritability of facial muscles exaggerated, swallowing of fluid caused coughing. Faradic irritability diminished; arms rigid and tendon phenomena exaggerated. Left side weak. No muscular atrophy. Lower extremities presented similar symptoms. There was no albuminuria. Oppenheim

diagnosed amyotrophic lateral sclerosis, but remarked that the dementia indicated pseudo-bulbar paralysis. Autopsy revealed a large lesion of the left temporal convolution. Pons and medulla appeared normal, microscopically. Microscopically, one olivary body appeared atrophic, due to pressure of the atheromatous vertebral artery. The external arciform fibres and the trigeminus nucleus of the same side were also atrophic. (*Wien. Med. Blaett.*, No. 21, 1894.)

R. W. ROHRDANZ.

A CASE OF ERB-GOLDFLAMM'S PARALYSIS. (REPORTED BY DR. SÖLDNER).—Pat, aged 27, experienced weakness of extremities, dyspnoea and a tired feeling in muscles of buttocks after slight exertion in 1891. In 1893 he placed himself under Goldflamm's treatment. Attack came on suddenly with weakness of muscles of the back of the neck. Present state is as follows: Poorly nourished; pronounced apathetic expression, especially on the right side, due to facial paresis; slight bilateral ptosis. In looking upward, the lids are at first well raised, but droop in a few minutes. Same is true of the bulb. The tongue can only be slightly protruded beyond the teeth. There is an evening exacerbation of symptoms. Speech is at first normal, but soon becomes of a markedly bulbar character. A similar condition is seen in the deltoids; the arms are at first raised without difficulty, but with repeated efforts, can hardly be moved. There is dyspnoea after prolonged speaking. The well marked weakness of the proximal muscles of the upper and lower extremities, while the distal muscles are relatively intact, is characteristic. Tendon reflexes are exaggerated; electrical reaction normal; sensibility normal. The change from illness to recovery and subsequent return of all symptoms; the development in a few weeks; the evening exacerbations; the weakness of the whole voluntary muscular system, particularly the proximal muscles, characterize the disease. (*Wien. Med. Blaett.*, No. 21, 1894.)

R W ROHRDANZ.

HEMORRHAGIC NECROSIS OF THE SPINAL CORD.—Dr. Ira Van Giesen stated before the N. Y. Neurological Society that he would give what seemed to him to be an explanation of the nature and origin of certain long, slender columns of necrosis in the spinal cord, apparently associated usually with acute myelitis. These columns of necrosis were very remarkable in that they were narrow and circumscribed, and yet

they might traverse long distances of the cord, above or below a circumscribed myelitis, while the surrounding structures of the cord were normal and showed no traces of inflammation or other processes which would produce such a necrotic column. For instance, seven or eight spinal segments above or below a circumscribed focus of myelitis might be pierced by a continuous streak or narrow column of necrosis, running through either the grey or the white matter. The segments thus traversed by the necrotic columns were quite normal with the exception of secondary degeneration in the various fibre tracts of the white matter. In addition, these necrotic columns in the spinal cord showed a tendency to the formation of cavities in them. The tissue was liable to become so much liquified or disintegrated by the necrotic process in places along the distribution of the column that a cavity or tiny tubular canal was produced which was sharply circumscribed and quite variable in extent. These cases were seemingly of exceedingly rare occurrence. The author gave the history of two cases of traumatic spinal cord hemorrhage which had recently come under his observation and showed the close relationship which they bore to the production of these long columns of necrosis or partly necrotic canals in the spinal cord which were thus far known as perforating necrosis. In conclusion Dr. Van Giesen regarded the condition of perforating necrosis as a distinct and individual lesion of the cord, due to a definite series of changes beginning with hemorrhage. To indicate this condition and to distinguish it from other spinal lesions he suggested the name haematomyeloporosis. (*N. Y. Med. Jour.*, June 2, 1894.)

B. M. CAPLES.

CASE OF SPINAL HEMORRHAGE.—Dr. Henry Handford records following case in *Lancet* for April, 1894. A robust girl of 19 years of age fell backwards and was able to continue her work for several hours. For next four days was only partially confined to bed. Vomiting and pain on movement were the prominent symptoms, followed by incomplete anaesthesia up to the level of the nipples. Unconsciousness supervened and death took place on the tenth day. At the necropsy extra-dural and intra-dural spinal hemorrhage was found, but no fracture of the spine or coarse lesion of the brain or cord.

T. W. BISHOP.

SYPHILITIC SPINAL PARALYSIS.—Although at present no symptoms pathognomonic of spinal or cerebral syphilis can be present, yet there are certain phenomena highly suggestive

of this condition. As examples may be mentioned cycloplegia and reflex pupillary immobility. Paralysis or paresis of accommodation when limited to one eye is commonly syphilitic. The Argyll-Robertson pupil not infrequently exists without any other recognizable symptoms of tabes dorsalis.

Some of the characteristic symptoms, according to Erb, are: A markedly spastic gait, the patient dragging his toes tardily along the ground, the legs being stiff and rigid, but there is scarcely any loss of power, for when placed in bed the legs can be moved freely and forcibly, although the movements may be jerky and ungraduated.

Contractions such as seen in myelitis, either idiopathic or resulting from the pressure of a tumor or disease of the bodies of the vertebrae, are rare.

In only one-tenth of his cases did Erb observe any such contractions. Great exaggeration of the tendon reactions is a constant phenomenon, patellar clonus, ankle clonus and toe clonus being well marked.

The sensory symptoms are characteristically subjective and slight, consisting mainly of numbness, tingling and very rarely pain in the affected limbs. Objective sensory phenomena are seldom noted, although occasionally circumscribed patches of anaesthesia may be detected. Affections of the bladder, causing either retention or incontinence of urine, are always present and are sometimes associated with paralysis of the sphincter and impotence is usually a constant and early symptom. Trophic changes are rare. The upper extremities remain quite unaffected.

After detailing a few cases the author of this article outlines his treatment as antisymphilitic remedies pushed to their farthest limits, iodide of potassium and mercury being administered for six or eight weeks. Patient confined in bed and gentle massage applied to limbs, better to avoid either form of electricity; catheterize bladder frequently as needed.

Dr. Turner considers the prognosis favorable both as regards life and improvement in the paralytic symptoms.

T. W. BISHOP.

SYPHILITIC AFFECTIONS OF THE SPINAL CORD.—In cases of spinal cord diseases in which the cause is obscure, it is necessary to bear in mind the many modes of action of syphilis on the central nervous system. Speaking generally, syphilis, when it attacks central nervous system, seems to affect the brain rather than cord, or at least the affections of the brain are most strikingly illustrated. Gowers says, "the degenera-

tive changes in the nervous system differ from the lesions of active syphilis both in character and time in such a way as to make the assumption reasonable that they depend upon some product of the growth of syphilitic organisms, a product which may be a chemical substance—a suggestion first made by Strümpell and widely held regarding other analogous maladies. Nothing, so far as is known, in the constitution of the posterior root zones and posterior columns renders them exclusively liable to suffer from the remote action of the syphilitic poison, and it is possible that other of the so-called primary degenerations of other tracts in the cord may be found to be caused by syphilis; such as primary spastic paraplegia and ataxic paraplegia. Again it is well known that syphilis may excite inflammatory processes which are indistinguishable from inflammations due to other causes, and further, the originally syphilitic nature of the process may be entirely unrecognizable amongst the more conspicuous secondary changes produced."

Some effects of syphilis on the cord are certain; these are the formation of gummata in the membranes or the cord itself; pachymeningitis hypertrophica, with its almost invariable seat in the lower cervical region; tabes dorsalis as a remote effect of syphilis stands on somewhat different grounds. Occasionally the syphilitic process is confined to one particular set of fibres or group of cells having a special function, and symptoms are produced such as those of acute locomotor ataxy, if the posterior columns, or of rapidly progressing muscular atrophy if the anterior cornua are involved. Besides the above well recognized types of syphilitic disease of the cord there is a large group of cases of meningitis, myelitis or meningo-myelitis, in which the agency of syphilis is probable, but not so distinctly proved. In specific diseases of the cord, the inflammatory disturbances at first excited cause symptoms of wide distribution which afterward subside and leave those which are to persist as the result of the original lesion. This able article of Dr. J. M. Clark's is concluded by a detailed account of several of his various spinal cases. (*The Lancet*, May, 1894.)

T. W. BISHOP.

ABSCESS OF THE SPINAL CORD.—Herm. Schlesinger reports a case from Obersteiner's clinic. A man 31 years old, sustained an injury to the perineum which was followed by cystitis and a purulent discharge from the urethra. A prostatic abscess required incision. A fortnight later he complained of fever, headache and stiffness of the spine. Four

weeks after this paralytic symptoms set in in all the extremities, bladder and rectum. Hyperaesthesia also supervened. Death ten weeks after incision of abscess. Autopsy showed a purulent spinal meningitis and a rather extensive abscess in the cervical and upper dorsal cord. The abscess was central, mainly in the posterior horn and its neighborhood and presented at some parts the appearance of concentric layers. Minute examination showed that the inflammation had entered the cord via the posterior horn, the meningitis being the primary affection. A myelitis, mainly of the external layers of the cord, with occasional small hemorrhages, was also found. Bacteriological examination showed the presence of staphylococci, but no gonococci.

The diagnosis of abscess of the cord is difficult; it must be based upon the acute onset of paralyses, with symptoms of meningeal irritation and the presence of a primary pyogenic focus in the body. In the etiology, traumatism plays the most prominent role, even if the spinal canal be not opened. The non-traumatic abscesses are mainly metastatic. (*Neurolog. Centralbl.*, No. 10, 1894.)

G. J. KAUMHEIMER.

TUMOR OF THE LOWER DORSAL AND LUMBAR CORD.—Bruns reports this interesting case. The patient, a young woman, complained some time after a slight fall, in the summer of 1890, of severe pain in the back, radiating into both legs and the abdomen. Later the pains were felt more on the right side, but were so severe as to confine her to bed. From the end of 1890 to May, 1891, she was comparatively comfortable. At this time the pains began again, and a paresis of the peroneal muscles on the right side was found. In the fall of 1891 there was a remission which lasted until some time before Bruns first saw her in February, 1892. He found paralysis (complete or almost so) of all the muscles of the right leg, except the tibialis anticus, with no trophic disturbance or qualitative electrical changes. Patellar reflexes lively. No disturbance of sensation, nor of bladder or rectum. Near the right ear a small tumor was found which, on removal, proved to be a fibrosarcoma. In July of this year, trouble in urination set in. In August the patellar reflexes were weak, otherwise she was the same. Between August 17 and 26, paraplegia rapidly set in, at first in the left peroneal and tibial muscles, then the muscles of the thighs and hips, the right preceding the left, with pronounced disturbances of sensation and complete paralysis of bladder and rectum. For a time there were indications of Brown-Sequard paralysis, the

motor symptoms predominating on the right, the sensory on the left side. Patellar reflexes were absent. In October, 1892, RD was found in the right peroneal area, with strong fibrillary and fascicular tremor. The anaesthesia extended upward to the area of the first lumbar root, in front above the inguinal crease, behind to the crest of the ilium. In the area supplied by the sacral plexus, sensation to touch was preserved, sensation to pain and temperature lost. Radiating pains throughout lumbar and sacral plexus, some pain on percussion over lower dorsal cord. A course of mercurial inunctions having given no relief, B. diagnosed a sarcoma of the membranes, with its center on the right side at the junction of the lumbar and sacral roots. Operation was proposed and accepted. As the most frequent error in operations of this kind is made in looking for the lesion below its real seat, all the vertebral arches from the first lumbar to the ninth dorsal (inclusive) were resected. The cord was somewhat thickened and did not pulsate, but seemed otherwise normal. Sounds passed into the canal above and below encountered no obstruction. The wound healed promptly and the patient suffered but little pain until August, 1893, although the anaesthesia gradually rose to the level of the umbilicus and became complete in the sacral area. A spina bifida developed at the site of operation. After August, 1893, frequent rigors, due to cystitis and pyelitis occurred, and the pains returned more severely than ever, extending even to the arms. Death in December, 1893, from influenza, fourteen months after operation. On opening the spina bifida a cloudy, bloody fluid escaped. A lobulated tumor was seen projecting under the arch of the ninth dorsal vertebra; at the lower end of the field of operation, the cauda was seen issuing from the tumor, which extended upward to under the eighth dorsal arch.

Examination of the hardened cord showed the entire lumbar enlargement and two lowest dorsal segments occupied by a tumor, whose bulk was equal to twice that of a horse chestnut. Between the tenth and ninth roots several nodular tumors were lying on the left posterior columns, involving the roots. The eighth and seventh posterior roots also contained small tumors. Other higher posterior and some anterior roots contained similar nodules. Histologically the growth was a spindle-celled sarcoma. On sections below the eleventh dorsal roots no trace of the cord could be found. Near the tenth root, the pia and dura were fused by the growth, the cord could be recognized, although its details were lost. Bruns believes that at the time of operation the tumor was restricted to flat and thin masses in the membranes, with, perhaps, nodules in some of the roots, and that it assumed its

compact and massive form during the fourteen months between the operation and the lethal termination. (*Neurolog. Centralbl.*, No. 7, 1894.)

G. J. KAUMHEIMER.

PATHOLOGICAL ANATOMY OF INFANTILE SPINAL PARALYSIS.—Microscopical examination lead Dr. E. Siemerling to believe that in the pathogenesis of infantile paralysis the inflammatory affections of the interstitial tissue, together with a proliferation of vessels in the region of the tract. arteriosus ant. spin. are the main factors. A primary disease of the ganglion cells, according to Charcot's idea of the pathology, cannot be assumed. (*Archiv. für Psychiatrie*, Vol. 26, No. 1, 1894.)

R. W. ROHRDANZ.

PATHOLOGICAL ANATOMY OF TABES.—Oppenheim calls attention to the fact that, in company with Siemerling, he found a degeneration of fibres in the spinal ganglia in 1885. The changes in the ganglion cells they considered so trivial that they attached no importance to them. Wollenberg, however, has found much more extensive changes in the ganglion cells, finding pigmentation, clouding and often atrophy. O. propounds the following theory, without giving it his unqualified endorsement: The noxious agent acts upon the spinal ganglia and its homologues, and damages them, without at first causing structural changes. These lesions are sufficient to cause atrophy of the peripheral portions of the nerve fibres in the cord, medulla and peripheral nerves, arising from such damaged cells; this atrophy gradually ascends and involves at least the intraganglionic fibres. If the process be of long duration, the ganglion cells may show degenerative changes. (*Berlin Klin. Wochenschr.*, No. 30, 1894.)

G. J. KAUMHEIMER.

TABES AND SYPHILIS.—The German syphilographers are taking an active interest in the discussion of this question. Isaac read a paper on this subject before the Berlin Dermatological Society and concludes: 1. There are so many sources of error in statistics that they do not allow of safe deductions in regard to the etiological relations of tabes and syphilis. 2. Syphilis has no etiological relation whatever to tabes; at most its influence is similar to that of other noxious agencies upon a predisposed nervous system. 3. Specific medication is contraindicated in tabes. (*Berlin Klin. Wochenschr.*, No. 19, 1894.)

G. J. KAUMHEIMER.

LARYNGEAL AFFECTIONS IN TABES DORSALIS.—Dr. Schlesinger divides the laryngeal affections in tabes into three groups, viz.: 1. Laryngeal paralyses. 2. So-called laryngeal crises. 3. Other disturbances of innervation. Not all laryngeal disturbances can be included in this classification as, for instance, laryngeal vertigo. The first group is distinguished by a regularity in the order in which the muscles are affected. The paralysis is generally bilateral and affects at first only the abductors. Patients are able to speak without effort, but suffer from inspiratory stridor. The laryngoscope shows typical posticus paralysis. The rima glottidis cannot be enlarged and dyspnoea and sometimes unconsciousness results. In milder cases of paralysis, the patient experiences disagreeable sensations in the region of the larynx with attacks of vertigo, a condition termed by Charcot "laryngeal vertigo." The laryngeal crises need not always be complicated by laryngeal paralysis. The symptoms are sudden disagreeable sensations in the laryngeal region, followed by dyspnoea and a cramp-like fit of coughing. Patient becomes cyanotic, excited and anxious. Twenty attacks may occur in one night. Authorities differ in regard to the aetiology of these attacks. Burger believes they are due to changes in the peripheral nerves and muscles caused by degeneration of the vagus and accessory nuclei in the medulla, together with an increased excitability of the superior laryngeal nerve. Prof. Obersteiner, however, found these nuclei intact in a case of tabes. Semon's hypothesis is that with every impulse sent to the larynx not only the respective muscles, but their antagonists are innervated, and the latter cause cramp-like closure of the glottis, because the abductors are paralyzed. The last group embraces the so-called ataxic disturbances of the larynx, as ataxia of the vocal cords, producing disturbances of innervation and scanning speech. Schlesinger refers to two cases of laryngeal hemiplegia, characterized by twitching of the arytenoid cartilages in one case and of the vocal cord of the paralyzed side in the other, although the recurrent nerve was paralyzed. Exner has thrown some light on these cases. He has found that the oblique and transverse muscles are supplied by the superior laryngeal nerve, so that when the latter is intact, the normal respiratory impulse can produce twitching of the arytenoid cartilages. (*Wien. Med. Blaett.*, No. 19, 1894.)

R. W. ROHRDANZ.

PARALYSIS OF THE SPINAL ACCESSORY NERVE IN TABES.—Ilberg reports (*Charité-Annalen*, 1893,) the case of a woman

of 53, who showed reflex pupillary paralysis, beginning optic atrophy on the left side, ptosis and internus paralysis, Romberg and Westphal symptoms, reduction of touch and pain sensation and hyperidrosis of the right side of face, right axilla and right half of chest. Both sternomastoids were atrophic, being reduced to the size of heavy packing cord. Rotation of the head possible to a slight degree. The lower half of the trapezius had disappeared with the exception of isolated small fasciculi. The position and mobility of the shoulders were altered accordingly. In the larynx total abductor paralysis and right-sided adductor paresis were found. There was some difficulty in swallowing, cough and dyspnoea, respiration at night being noisy, sometimes howling. Gastric crises and ischuria were observed. The only symptom of accessory paralysis not present was paralysis of the velum palati. (*Neurolog. Centralbl.*, No. 7, 1894.)

G. J. KAUMHEIMER.

RARE FORMS OF TABES.—Marie Vućetić (*Inaug.-Dis. Wien.*, 1893,) reports seven rare cases of tabes among fifty-four cases observed at Zürich in ten years. In one the disease began with an apoplectic attack and left hemiplegia. In a second the tabes was combined with paralysis agitans. The diagnosis was verified by autopsy. In a third case, multiple sclerosis coexisted with tabes. In a fourth, permanent paralysis of several cranial nerves was found. In three cases of tabes cervicalis the tendon reflexes were normal in the lower, absent in the upper extremities in two. In the third case the loss of the patellar reflex was found to be due to a neuritis of the crural nerve. (*Neurolog. Centralbl.*, No. 7, 1894.)

G. J. KAUMHEIMER.

ANALGESIA OF THE ULNAR NERVE IN TABES.—Biernacki has found in fourteen out of twenty cases of tabes examined, that pressure on the ulnar nerve at the elbow did not cause pain, although numbness of the ring and little finger were felt. In another case, the left nerve was analgetic, the right normal. In still another, the analgesia was not absolute, pain supervening if the pressure was repeated four or five times. There could be no doubt as to the diagnosis in the cases concerned. In several hundred normal persons the ulnar nerve was found invariably sensitive to pressure. Nor was a reduction of sensibility found in a number of cases in which the upper cord was involved. He found it normal in one case of cervical

spondylitis, one of pachymeningitis cervicalis, four cases with symptoms of progressive muscular atrophy, one of syringomyelitis, as well as in five cases of disseminated sclerosis, in hemiplegics, and in cases in which the dorsal or lumbar cord were affected. In cases of multiple neuritis, arsenical neuritis and other peripheral affections, the sensibility was decidedly increased. He even found that patients in the terminal coma of tubercular meningitis reacted to the pressure on the ulnar nerve. Of patients with general neuroses only a few hysterics showed ulnar analgesia on that side of the body which was anaesthetic. Biernacki believes the ulnar analgesia to be due to changes in the posterior cornua. He states that in half the cases presenting this symptom, diffuse cutaneous analgesia, restricted to pain, was found on the arms. This was only discovered on exact examination. (*Neurolog. Centralbl.*, No. 7, 1894.)

The publication of the above communication has induced Cramer, of Eberswald, to examine his paretics for the same symptom. Of 51 paretics 39 (76 %) showed absolute ulnar analgesia. Seven others had analgesia on one side only. No relation could be traced between the presence of this symptom and the other symptoms of general paralysis. Among 63 stuporous, demented non-paralytic patients 50 (79 %) gave evidence that pressure on the ulnar nerve was decidedly painful. These figures, if confirmed by further investigation, would indicate that the absence of this ulnar reflex was of considerable value in differential diagnosis, although it is not, as Biernacki claims, pathognomic of tabes. Cramer believes that lesions of the cord alone cannot explain the ulnar analgesia, as in a case which presented this symptom upon one side only a bilateral lesion of the cord was found. (*Neurolog. Centralbl.*, No. 13, 1894, p. 500.)

G. J. KAUMHEIMER.

THE RELATION BETWEEN TABETIC ARTHROPATHY AND SYPHILIS.—Dr. N. Muchin reports two cases, quotes authorities and formulates his ideas as follows: 1. Syphilis of the joints in tabetics cannot be distinguished from Charcot's arthropathy. 2. A causative relation between Charcot's arthropathy and the innervation disturbances of the joints can be considered proven. 3. Nevertheless, arthropathies occur which are not of purely nervous but of mixed origin, in which the innervation disturbances are only predisposing elements. They interfere with the nutrition of the joints and prepare them for the action of internal and external injurious agencies.

4. The external factors are trauma and cold; the internal, syphilis and arthritis. (*Deutsch. Zeitschr. für Nervenheilkunde*, Vol. V., No. 2, 3. 1894.)

R. W. ROHRDANZ.

THE DIAGNOSIS OF CHARCOT JOINT.—Dr. William B. Noyes believes that a Charcot joint can with a fair degree of certainty be clearly diagnosed from other joint lesions even in an extreme case without history of tabes. He states that it may be found so early that it may make a diagnosis possible at a time when some of the most typical symptoms of tabes have not yet made their appearance. Minor changes in the joint surfaces and adjacent tissues occur much more frequently than the definite Charcot joint disease, and probably have considerable influence over the development of the ataxia. Lastly, he thinks it not impossible that the peripheral nerves are an even more active element in causing the trophic joint changes than the cord itself. (*Med. Record*, June 16, 1894.)

R. W. ROHRDANZ.

PATHOLOGICAL HISTOLOGY OF DISSEMINATED SCLEROSIS.—M. Popoff publishes a preliminary paper based upon the examination of four cases in Flechsig's laboratory in which he dissents decidedly from the views now current as to the pathology of this disease. He believes that the connective tissue takes no part in the morbid changes, which are confined to the nervous elements, and that the contrary view is due to defective methods of staining. He uses a triple stain, composed of patent acid rubin, orange and haematoxylin. This colors the axis cylinder of myelinic fibres red, the myelin sheath intensely yellow and the neuroglia and products of degeneration a reddish violet. He distinguishes a subacute and a chronic form of the disease. The process always begins around a vessel, but does not invade the elements uniformly. The chronic form is described first. The sheath of Schwann is first affected; it loses its smooth outline, becomes swollen and acquires the ability to stain with rubin so that it is covered with red stripes and points. A part undergoes fatty degeneration, leaving peculiar fissures in the tissues after the fat is washed out; another portion becomes finely granular and stains an intense violet with rubin.

The axis-cylinders, which become affected later, show round or fusiform varicosities, and later are transformed into a granular detritus. In some places, before becoming vari-

cose, the axis cylinders become remarkably thin and tortuous; in others they become very broad and granular. The cells of the neuroglia are not increased in number, but, on the contrary, degenerate. The bodies of the multipolar neuroglia cells lose their glistening appearance, become granular and lose their processes. Later the nucleus becomes fused with the cell body, does not stain with haematoxylin, but does stain with rubin; and at last the cell is represented by a mass of granular debris. The fibrous portion of the neuroglia is affected last of all. The main changes in the vessels consist in cellular infiltration and thickening of their walls, with occasional concentric obstruction of their lumen. An abundant escape of leucocytes takes place, but they undergo no formative metamorphosis, simply exerting an unfavorable influence on the nervous elements by their presence and later being absorbed.

In the subacute form the cellular infiltration of the vessel walls is not so uniform; the walls not so dense; the leucocytes are more numerous; the fibres and axis cylinders show much larger varicosities and the entire process is more acute. The myelin is more granular, the axis cylinders are represented by rows of large round or fusiform bodies and at last separate into rows of peculiar globules, some of which show remnants of the fibrils as projecting from their sides. Besides these changes, which are degenerative in character, others, of a regenerative nature, take place. At the periphery of the placque a formation of new vessels is observed. This has already been recorded by Buss, but this observer has placed an altogether different interpretation upon his observations. The blood supply seems insufficient to provide for a *restitutio ad integrum*, but occasionally Popoff has observed axis-cylinders breaking up at their ends into five or six fine fibrils, which increase in length and can be traced through the affected patch as a bundle of quite characteristic form. (*Neurolog. Centralbl.*, No. 9, 1894.

G. J. KAUMHEIMER.

PATHOGENY OF ECLAMPTIC ATTACKS.—Dr. Camille Conrel states (*Rev. Internl. de Biblio Med.*, May 10, 1894,) that existing knowledge eliminates certain theories; those as to eclampsia by alteration of the nerve centers; those as to reflex eclampsia; those as to eclampsia by mechanical irritation. The assimilation of eclampsia to uræmia is contested. Why is the liver constantly affected? Why is albuminuria not always present? Why should eclamptic uræmia be purely

epileptic in type and nephritic uræmia not be? The theory of Auvard and Riviere (retention of poisons normally eliminated by kidney and liver) explains but the symptoms, but how on this theory explain the renal and hepatic alterations? Certain authors claim that a gravidic auto-intoxication could be the origin of a toxine, causing eclampsia. The microbial theory is very seductive, but lacks supporting researches. A microbe or its toxine may poison the organism and thus produce the convulsions and the renal and hepatic lesions. In Connel's opinion gravidic auto-intoxication best explains the facts. A microbe and its toxine could only alter the eliminatory organs.

J. G. KIERNAN.

PUERPERAL ECLAMPSIA: HEPATIC OR RENAL?—Massen, after analysis of the urine and consideration of anatomical and pathological lesions, is inclined to believe that the affection is hepatic in origin. Leucomaines are not destroyed as they should be in the normal course of changes of effete products, but accumulate and poison the system. Albuminuria in pregnancy is certainly a symptom of greatest import. It is always necessary to determine if it be due in any particular case to a primary nephritis or to a secondary lesion of the kidney of hepatic origin. In the latter case every means must be taken to avert the imminent danger of eclampsia. Milk diet and inhalations of oxygen should be prescribed, all moral and physical disturbance must be avoided as far as possible; chloroform should on this account be administered during labor. (*Brit. Med. Jour.*, June 16, 1894.)

B. M. CAPLES.

EPILEPSY IN A PUERPERA WITH HYPERPYREXIA.—Much as epilepsy and eclampsia resemble each other, there yet occurs now and then a case in which the convulsive seizures must be regarded as purely epileptic and therefore slightly different from eclampsia associated with albuminuria.

S. T. Oliver (*The Lancet*, May, 1894,) records a case of this kind occurring in a young woman of 28 after her third confinement, peculiar fainting attacks, evidently petit mal, having occurred during other confinements. After this confinement patient early developed epileptic attacks with persistent unconsciousness and attended with much fever, reaching in three days 109° , the temperature last recorded before death.

No necopsy was permitted, but the absense of any evidence of the presence of puerperal septicaemia and the absence of

albumen in the urine from first to last precludes puerperal eclampsia and remands this case to the category of puerperal epilepsy.

T. W. BISHOP.

REMARKS ON SENILE EPILEPSY.—Three chief seasons in the life of man seem most liable to the invasion of epilepsy: the time of teething; time of puberty, from 10 to 20, and old age, from 60 years upwards; some authorities giving another period, at or about 40 years.

In this article Dr. E. M. Sympson treats in an instructive manner of the differential diagnosis of senile epilepsy from simulating affections.

Almost certainly senile epilepsy is not hereditary or the attacks would have come on earlier in life; the nature of the seizures is precisely similar to those of earlier life, though *petit mal* is probably the more common.

In epilepsy of advanced life the brain suffers markedly after each fit of convulsions; the intellect may be perceptibly clouded, the semi-comatose state is less easily recovered from, more or less entire forgetfulness of the immediate past may come on and the patient may live again in a world of 40 years ago; the temper, too, often becoming feverish and irritable.

Little can be said of the pathology of senile epilepsy since the pathology of idiopathic epilepsy is but little known. (*British Med. Jour.*, May, 1894.)

T. W. BISHOP.

PARALYSIS OF BELL'S LONG RESPIRATORY NERVE.—Dr. Martin reports a case as above following typhoid fever. During the fourth week of convalescence noticed that the angle of the right scapula had become very prominent. This had been diagnosticated as a dislocation of the scapula. On examination it was at once apparent that the serratus magnus had been paralyzed. Inability to raise the arm higher than the shoulder had been well marked in the case. Under treatment of massage and electricity patient had recovered in a great measure. (*N. Y. Med. Jour.*, June 9, 1894.)

B. M. CAPLES.

SCIATIC NEURITIS.—Neuritis rather than neuralgia of the sciatic nerve greatly predominates, in the opinion of Dr. A. W. Stinchfield, (*Northwestern Lancet*, May 15, 1894.) Differential diagnosis: In neuritis, have pain continuous with exacerbations;

in neuralgia, have paroxysmal pain; in neuritis, have local or general fever; in neuralgia, neither; in neuritis, anaesthesia in small areas; in neuralgia, none; neuritis occurs with muscular rheumatism; neuralgia, not so; in neuritis, pain increased by pressure or movement; in neuralgia, often relieved by same.

Causes of neuritis, traumatism, extension of inflammation from surrounding tissues, muscular rheumatism, prolonged pressure, main cause being exposure to cold.

Treatment.—Remove cause, absolute rest, cupping often, cantharidal blisters whole length of nerve, hot applications, hypodermics are frequently and curatively used. Salicylate of soda is said to be curative and anodyne.

T. W. BISHOP.

CASE OF PERIPHERAL PARALYSIS FOLLOWING VARICELLA.—Dr. Wm. Gay records a case of a definitely localized affection coming with a sudden onset, ending in a brief time in recovery. Patient, a child of 2 years, was found one morning, two weeks after onset of the varicella, with lower extremities completely paralyzed, Paralysis remained complete for three weeks.

The sudden onset of the nervous symptoms, before the crusts of the varicella had completely disappeared, strongly suggests that the varicella and nerve disorder were related as cause and effect.

The alternative diagnosis is infantile paralysis which, however, is inconsistent with the sensory disturbances and myelitis. If the latter condition had existed, there must have been a considerable affection of the whole lumbar enlargement and it is difficult to understand how the organic reflexes could have escaped, as they doubtless had in such a case. (*British Med. Jour.*, March. 1894.)

T. W. BISHOP.

ON PARALYSIS FOLLOWING CHLOROFORM ANAESTHESIA.—K. Büdinger writes on this subject from cases observed in Billroth's clinic. (*Arch. f. Klin. Chirurgie. Bd.. XLVII.*) He believes that some cases have a central origin, due either to ischaemic softening of the brain tissue or to a primary necrosis directly attributable to the chloroform. He relates such a case with the results of autopsy. In other cases, the lesion is peripheral. In regard to this class he agrees, on the whole, with H. Braun, whose paper has been abstracted in this review. (Vol. IV., p. 340.) Büdinger reports nine cases. (*Neurolog. Centralbl.*, No. 10, 1894.)

G. J. KAUMHEIMER.

A CASE OF PROBABLY HEREDITARY LEAD-PARALYSIS.—Dr. Martin Anker describes a case from Oppenheim's polyclinic. Berger, Eulenberg and Oppenheim have described the pernicious effects of chronic plumbism in the ancestry upon the descendants, having found a large number of nervous troubles. A typical saturnine paralysis has, however, never been described, which had a purely hereditary basis, without direct access to the poison. The patient was the child of a compositor who had had several attacks of lead-colic during the 17 years he had worked at the trade. At the age of 3 years, up to which time she developed normally, she received an injury to the head, followed by unconsciousness, vomiting and later, by retardation of the mental faculties. When first seen, at the age of 8, she could not tell her name or execute simple motions when told. The mother then stated that a paralysis of the limbs had slowly developed within the year preceding. The feet were in a position of equino-varus, and the knees somewhat stiff. There was found exaggerated kneejerks and patellar clonus. The Achilles reflex was normal. Of the extensors of the right foot, only the tibialis anticus and extensor hallucis contracted to a slight degree. Plantar flexion of foot and toe were normal. In the left leg the tibialis anticus seemed normal, the other extensors very weak, the abductors paralyzed. Partial RD in the area of the peroneal nerves. Sensation seemed normal, as far as could be ascertained. Six months later the upper extremities, previously free, had become involved, typical drop-wrist being present. The extensors of the thumb were paralyzed, triceps and supinator longus normal. Complete RD. in all the extensor muscles; supinator longus and triceps reacted normally. The paralysis of the legs had made considerable progress, both tibiales ant. being paralyzed, the plantar flexion of the foot diminished and of the toes abolished.

Four months later the arms had recovered their power to a considerable degree, especially the right one. On the left side, main en griffe had developed. The condition of the legs was unchanged. The author considered, in the diagnosis, alcoholic neuritis and poliomyelitis, but rejects them and believes the case to be of the nature stated in the title. (*Berlin Klin. Wochenschr.*, No. 25, 1894.)

G. J. KAUMHEIMER.

RHYTHMIC SPASM OF THE OCCIPITO-FRONTALIS.—Dr. L. Stembo describes the case of a girl of 15 who showed a rhythmic alternate contraction of the occipital and frontal portion of this muscle. The auricular muscles were also

involved. The scalp vibrated at the rate of 120 to 156 beats per minute, increasing or diminishing in exact ratio with the pulse rate. There was considerable contraction of the visual field. Sensation was diminished on the right side, especially on the right forearm and hand, which were paretic. Treatment consisted in the application of the galvanic current, with the anode over the trunk of the facial nerve, as well as over the upper cervical vertebrae, and the use of the Franklinic douche. In addition the bromides and digitalis were given without result. Hypnotism, with prehypnotic suggestion, was employed, and after the third seance the spasm ceased. (*Berlin Klin. Wochenschr.*, No. 15, 1894.)

G. J. KAUMHEIMER.

PERSISTENT ALBUMINURIA AND GLYCOSURIA, WITH FREQUENT HYALINE CASTS, IN FUNCTIONAL NERVOUS DISEASES.—Dr. Landon Carter Gray read an article before the New York Academy of Medicine in which he states that for many years he has been in the habit of having examinations of the urine made in cases of neurasthenia and other functional disease, and the difficulty of treatment of many neurasthenics has led him within the last few years to a very careful testing, with a hope that he might therefrom derive indications for a rational therapeutics. In this way he has examined 31 cases of neurasthenia, 1 case of sub-acute mania, 2 of Raynaud's disease, 2 of hypochondria, 1 of *folie de doute* or mysophobia, 5 of melancholia, 4 of vertigo, 1 of lumbago, and, for reasons that will be seen further on, 1 case of diabetes mellitus, 1 of spinal syphilis, and 3 of hemiplegia. In all of these cases tests have been made for albumin, sugar, urea, the phosphates, uric acid, calcium oxalate, casts and indican; and in many of them the urine has been tested for nucleo-albumin from the bile, for serum-globulin, fibrinogen, urobilin and bile. In most of these cases albumin, sugar, excess of phosphates, calcium oxalate, uric acid, and indican have been found, and the almost constant presence of albumin in heavy or light traces. He thinks slight albuminuria is merely an attendant symptom of these cases of functional nervous disease. These cases of albuminuria are almost always attended by varying amounts of urinary sugar, which is not necessarily a concomitant symptom of nephritis. On the other hand, he can not remember ever having seen a case of albuminuria in functional nervous disease pass into well marked nephritis. He has found Millard's test to be a much more reliable one than that by heat and nitric acid, inasmuch as he has frequently failed to find slight amounts of albumin by the latter when they

have been found by the former; whilst, on the other hand, he has never failed to find albumin with heat and nitric acid when it had been demonstrated by Millard's test. The sugar which he has found in these urines has been determined by either Fehling's or the indigo-carmin test. He found the latter far the most delicate and reliable, and he now uses it in all cases. He has found that case after case of migraine will be benefited by the administration of twenty drops of nitro-muriatic acid before meals, and three to five grains of the salicylate of soda after meals; and modified, too, in such a way that the attacks of migraine have in several instances disappeared for months, and even then, returning, are very much less severe than formerly.

From these cases and these examinations it would appear that most cases of neurasthenia and many cases of functional nervous disease will show, with precise examinations, slight amounts of albumin, sugar, excess of uric acid and occasionally hyaline casts, while the excretion of urea is about normal. In other words, these cases excrete abnormal amounts of the terminal products of nitrogenized and hydrocarbonaceous metabolism. What becomes of the fats he does not know unless they pass off, as is probable, through the lungs in the form of carbonic acid. It is probable that these delicate tests show greater amounts of sugar, albumin, uric acid, and hyaline casts in certain conditions than are found in states of health, although he has had many analysis made in which none of them have been found. For these reasons he believes that the following conclusions are justifiable: 1. Many functional nervous diseases, especially neurasthenia, can constantly or well-nigh constantly be accompanied by albuminuria, glycosuria, excess of uric acid and oxalate of lime, and occasionally by excess of urea, indican and hyaline casts. 2. It is probable that these urinary products are results rather than causes of disease. 3. These conditions very probably represent what has been called lithaemia. 4. It is probable that many, if not most, of these cases are not cases of early nephritis. 5. It is possible that there are different albumins in the urine, and that upon the determination of these will rest the future diagnosis of nephritis from other diseases. He has often seen cases of neurasthenia and melancholia recover after proper treatment of the nervous symptoms, and then the albuminuria and glycosuria would gradually disappear. He thinks that he is therefore warranted in concluding that the nervous disease is the cause of the altered metabolism in these cases. For therapeutic purposes he thinks that all these cases can be divided into three classes: First, cases without mental or nervous symptoms or intestinal disturb-

ances; second, cases with intestinal disturbances, with or without mental or nervous symptoms; third, cases with marked mental or nervous symptoms.

1. The light cases without mental or nervous symptoms or intestinal disturbances are best treated by nitro-muriatic acid, twenty drops in a wine-glass of water three times a day after meals; or in some instances Haig's prescription, of nitro-muriatic acid before and from two to five grains of salicylate of soda after meals, will answer best. He does not think that larger doses of the salicylate of soda are beneficial; indeed he seldom goes beyond two grains, for more than this is apt to depress the patient. Laxatives should be used gently and carefully in all these cases. Usually he has found Rochelle salt to be sufficient—a drachm in a tumbler of water before breakfast; but it is a great mistake to use the larger doses up to a half ounce, that are often advocated. Sometimes it will be well to use a few small doses of calomel before commencing with the Rochelle salt, say two grains at bed time for one or two nights, or $\frac{1}{10}$ grain given every hour for five hours, and followed next morning by the laxative. Where the constipation is very obstinate he has found that $\frac{1}{10}$ grain of aloin once, twice or three times daily will be quite effective, and if it acts too precipitately it can be combined with advantage with two grains of the extract of cascara sagrada.

2. The cases in which there is intestinal disturbance may be sub-divided into two classes: those in which there is intestinal disturbance alone, and those in which this is accompanied by mental or nervous symptoms. In both, the intestinal disturbance should be mitigated, if it be possible to do so, but in the cases with mental or nervous symptoms, the relief of the intestinal symptoms will not be sufficient, and can very often not be accomplished until the mental or nervous symptoms have been relieved. For the intestinal disturbance he has long given up the use of pepsin, as he believes that it only relieves temporarily, and its continued use will only aggravate. Sometimes pancreatin, in a combination spoken of hereafter, will act for a short time very beneficially. His patients have derived much more benefit from the subgallate of bismuth, salol, calomel, subnitrate of bismuth, codeia, laudanum, and salines. Of all these he believes that the subgallate of bismuth and salol are the most effective, in doses respectively of 5 and 2 grains three times a day. It is usually advantageous, however, to preface their use with a few doses of calomel in the manner that he has already described. In certain instances of great discomfort after meals, 5 or 10 grains of the subnitrate of bismuth will act

like a charm, but it is not a reliable remedy. Where there is continued pain in digestion that can not be relieved by these measures, moderate doses of codeia, $\frac{1}{4}$ to $\frac{1}{3}$ of a grain, three times a day, will be found to be very beneficial, or if this does not answer, 5 or 10 drops of laudanum may be substituted. These opiates, however, should never be continued very long, in his experience. In all cases, however, care should be taken to have one or two easy movements of the bowels daily, and this can be best attained by the methods already described. Naphthol, beta-naphthol, and guaiacol have not done well in his hands; he has not found them to compare in efficacy with the drugs just mentioned.

3. The cases in which there are nervous or mental symptoms, with or without prostration, must be treated from an entirely different standpoint. The laxatives and digestives alone will often greatly aggravate the disease, and in this class of cases calomel is an especially dangerous remedy, for he has a number of times seen its use in melancholia followed by a violent outbreak. Rest, or more properly speaking, restriction of the expenditure of energy, is a *sine qua non* in the treatment of these severer cases. Absolute and prolonged rest in bed is not necessary in cases of neurasthenia. He has seen many neurasthenics put on their feet after eight or twelve weeks of rigid rest treatment so ruddy and fat that it was a matter of painful surprise to find them incapable of more than slight exertion for weeks or months. This has led him to seek for modifications of Dr. Mitchell's plan. He has reluctantly abandoned massage; in the first place because he believes that in many cases of neurasthenia it actually prolongs the weakened condition, while he has seen it aggravate cases of melancholia. Even in the severest cases he has found it sufficient to put the patient to bed for a few days or a week, then have them up and about in the afternoon, then simply stay in bed until 10 in the morning and go to bed by 8 or 9 at night; while in the lighter cases the interdiction of walking, lying down for a few hours on a lounge each day, and getting long hours of sleep, may be all that is necessary. By these methods patients never lose the use of their muscles. They simply become somewhat more incapable of exercise, and that is easily rectified when the time comes. In cases of melancholia it is almost impossible to keep the patient in bed, as the morbid introspection renders the quietude well-nigh unbearable, although, when rest can be obtained, it is always beneficial. Next to the enforced rest, he has found that the ingestion of large, what would often seem to be surplus, quantities of food is most important. This must, however, be done systematically, and day by day the food should

be prescribed in increasing amounts until, at the end of ten days or two weeks, three full meals a day and a quart of milk should be taken in the twenty-four hours. In some cases of melancholia the aversion to food is so great that proper alimentation becomes a serious difficulty. When this is the case he has often found that a threat of feeding by the stomach-tube was all that was needed, inasmuch as patients dread this and will compromise on any terms rather than have it. He has often, however, been forced to actually proceed as if he were about to carry out the threat, but in no single instance has he really had to do it, as the sight of the tube has been sufficient. Rest and surplus alimentation are usually of basic importance in these cases, but they will not do everything. In melancholia the careful and systematic use of opium and hypnotics is unavoidable; and in neurasthenics, iron, malt, and cardiac stimulants (the best of which is strychnine) are necessary. Properly (that is systematically and vigorously) treated, these cases are of excellent prognosis. Left to run their own course, however, they are exceedingly chronic and apt to leave a condition of invalidism behind them.

B. M. CAPLES.

AUTO-INFECTION IN DISEASES OF THE NERVOUS SYSTEM.—The subject of infection has been one of the most interesting because it has brought to light the knowledge of micro-organisms that produce disease; one of the most profitable because it has and will result in discovery of the conditions that arrest their development, and agents which neutralize their toxic influence.

Infection from without produces the various forms of meningitis, including cerebro-spinal meningitis, tetanus, hydrophobia, acute poliomyelitis, acute ascending paralysis, the puerperal and syphilitic diseases of the nervous system.

Infections which may arise from within find their chief source of auto-infection in the gastro-intestinal tract. Micro-organisms here produced may produce simple indispositions or the graver conditions of delirium, coma, eclampsia, excessive elevation of temperature, acholia, cardiac failure and paralysis of the medulla oblongata. These bring about their results in various ways. They may act mechanically by obstructing blood vessels of the lungs, kidneys and brain; they may develop anatomic lesions in epithelial cells, in muscular fibres and other elements, thereby producing œdema, hemorrhage, suppuration and gangrene. The mental dis-

orders that arise during the course of the infectious diseases are recognized as the result of pathogenic organisms, with the clinical observation that in the febrile state the psychosis is usually an acute delirium resembling alcoholic; in the post-febrile stage, it is usually of an asthenic character, a state of mental cloudiness and confusion. Not only are we to recognize many of these mental diseases as auto-infections, but also such diseases as epilepsy, megrim, chorea, and neurasthenia and probably others. (Dr. D. R. Brower, *Jour. Am. Med. Assn.*, Aug. 4, 1894.)

T. W. BISHOP.

NEUROSIS HEMICRANICA—(Sciamanna, Internat. Med. Congr., Rome, *Rivista Sperimentale*, XX., p. 264.) There are nervous accessional syndromes with sensory disturbances that resemble to the paroxysms that constitute the typical attacks in some cases of hemicrania, but that are still different from these hemicranial equivalents:

1. Because they occur in subjects who have not had hemicrania.
2. They first appear at adult age.
3. They are of long duration.
4. They are frequently repeated during the condition.
5. They have long periods of amelioration that induce a belief in a cure.

Like typical hemicrania it has close relations with classic epilepsy, many points of contact without actual convulsions. It is differentiated from it by the following:

1. By the lack in the subject of somatic and psychic signs of degeneracy.
2. By the attacks not occurring suddenly as in epilepsy, but developing gradually.
3. By the long duration of the attacks.
4. By the phenomena of the attack, instead of being especially by discharge of centrifugal it is predominantly that of centripetal activity.

H. M. BANNISTER.

ENCEPHALASTHENIA.—Althaus suggests this term as a substitute for the name "neurasthenia." The latter is misleading as the trouble is not in the nerves, but in the central apparatus. He has used the term "failure of brain power" for over ten years and proposes the above international equivalent for common use. In regard to the nature of the disease,

he propounds the theory that it is due to a lack or perversion of animal electricity. As in a battery the current (C) is the electromotive force (E) divided by the internal resistance (R) $C = \frac{E}{R}$, so the available force of the nerve cell may be expressed by the formula $B = \frac{F}{R}$, B being the available energy of the cell, F the total force developed, and R the resistance of the cell itself. There may be an actual diminution in the production of nerve force or a resistance to its transmission to the fibre. In the forms of encephalasthenia attended by hyperaesthesia, we may reasonably assume an abnormally reduced resistance, such as we find in the over-irritated nerve of the frog's leg. As a second reason for assuming the analogy of nervous force with electricity, Althaus cites cases which he treated for a long time by the application of the electric current to parts of the brain, without results. On changing the place of application to other cerebral regions, rapid improvement took place. In conclusion he protests against the view prevalent among the profession that the subjects of this disease are only imagine they are sick. Even Sir And. Clark stated: "They may be ailing, but not sick in the common sense of the term." Even in the cases to which the terms spinal or sympathetic may be applied there are no symptoms which may not be explained by lesions of the brain. (*Deutsche Med. Wochenschr.*, No. 13, 1894.)

G. J. KAUMHEIMER.

THE PATHOLOGICAL HISTOLOGY OF EXPERIMENTAL RABIES. —Prof. Camillo Golgi publishes some remarks on this subject in (*Berlin Klin. Wochenschr.*, No. 14, 1894.) He claims that these changes can be demonstrated by his method of black staining (silver method?) and consist of: I. Changes in the structure of the nuclei, consisting in swelling, loss of contour and prominence of the chromatin. These changes are not so important as the evidences of cariolysis in the nuclei of the vascular endothelium, of the neuroglia, and of the ependymal epithelium. These changes are found most frequently in the endothelium, least so in the ependyma. The changes never proceed to a real division of the nucleus, but the chromatin fibres are in short, irregular fragments, such as are found in degenerated elements. These changes were found in rabbits, which were killed before the extreme symptoms of paralytic rabies developed and could be demonstrated in the cortex of the cerebellum by the fourth or fifth day. II. Changes in the form and structure of the cells, consisting of: A) Narrowing, vacuolization and cystic degeneration of the nerve cells. These are simply different degrees

of the same process, and are found in all parts of the central nervous system. B) Changes demonstrable by methods directed to the study of the external form of the cells. These consist in circumscribed or diffuse swelling or atrophy of the protoplasmic processes, which seemingly extend from them to the cell body. C) Granular and fatty degeneration of the nerve cells. This is found very frequently beside the other changes described. In cases running a protracted course a destruction of the cells may occur to a considerable degree. In the large monopolar cells, which he considers as belonging to the sympathetic system, he has observed a dislocation of the nucleus, usually in the direction of the prolongation. In these cases the nucleus shows alterations in shape and structure, extending even to complete destruction. D.) Granular and fatty degeneration of the neuroglia cells, which he found generally distributed throughout the various structures of the nervous system. III. Changes in the intervertebral ganglia. These consist in the accumulation of round cells, dilatation of the vessels, frequent vacuolization of the nerve cells, a coarsely granular condition of their protoplasm, with formation of a clear peripheral zone, and dislocation of the nucleus. While none of these changes can be considered characteristic of rabies, taken either separately or together, they certainly demonstrate the fallacy of the statements of even the latest text books that "rabies has no pathological anatomy. If we are bound to give a name to the picture observed, we may say that the anatomical process is a encephalo-myelitis parenchymatosa.

G. J. KAUMHEIMER.

ON A HITHERTO UNNOTED SYMPTOM OF DIABETES MELITUS.—Dr. Unschuld, of Neuenahr, has found in 26 % of diabetes, complaints of cramps in the calves. These usually occur in the morning, after rest on a couch or after a bath. In other cases they occur during the night, on arising to urinate. They seem to have no relation to the causative factor of the diabetes, have been observed in all the forms of the disease except the acute form of juvenile diabetes, and seem to have no prognostic significance. They usually vanish upon rubbing or pinching the affected part or upon stamping the foot. The figures given above are based on an experience of over 800 cases. (*Berlin Klin. Wochenschr.*, No. 28, 1894.)

G. J. KAUMHEIMER.

MYXŒDEMA AND EXOPHTHALMIC GOITRE. — Dr. Cauter reports ("*Revue Internl. de Biblio. Med.*," April 25, 1894,) a myxœdemic in whom the use of thyroid extract produced

symptoms resembling those of exophthalmic goitre. Basing his views on this case, Dr. Cauter is of opinion that exophthalmic goitre has the following pathogeny: It is due to an intoxication of gastro-intestinal origin. The resultant toxine acts directly or indirectly on the thyroid gland secretion, which is at the onset considerably increased. After a period of excessive activity the thyroid atrophies.

J. G. KIERNAN.

ETIOLOGY OF EXOPHTHALMIC GOITRE; A NEUROSIS.—The nervous system has long been the supposed seat of origin of the disease, the exploded theory of derangement of the cervical sympathetic ganglia marking the commencement of this belief. More recently the experimental production of exophthalmos in dogs by section of the restiform bodies of the medulla, and the discovery of the vaso-motor center, which clinical experience shows is obviously deranged in this disease, have led many authorities to locate the origin of the disease in the medulla oblongata. Besides the theory of functional derangement of the medulla, Dr. E. A. R. Newman superadds the theory that the disease is also due to a functional disturbance of the brain itself, manifesting itself by and through the lower centres in the medulla. Both psychical and clinical observations support this idea. A history of insanity, epilepsy, or some other form of mental instability, frequently is found with this affection, leading Newman to conclude that the complaint will be most rationally treated from the standpoint of a neurosis. (*The Lancet*, August 11, 1894.)

T. W. BISHOP.

CASE OF AMYOTROPHIC LATERAL SCLEROSIS.—Dr. Chas. H. Brown recently presented before N. Y. Neurological Society a case with the following symptoms: Boy, 15 years, who, two and one-half years previous, noticed loss of proper speech and difficulty in whistling and in moving the tongue.

These symptoms were rapidly succeeded by difficulty in deglutition, closing of the eyes, deafness and inability to move the facial muscles. After a few months, became unable to freely handle fingers as in buttoning his clothing; became emaciated; developed paralysis of the seventh nerve; had the "tapir" mouth. Trophic degeneration in the muscles of the face and neck soon noticed; tongue much atrophied; larynx distorted. He presented all symptoms of nuclear implication of the bulb and there was glosso-labio-laryngeal paralysis. There

were general fine and coarse fibrillary twitchings all over the body, with exaggeration of the superficial and deep reflexes and slight tonic and spastic action in the movement of many muscles.

T. W. BISHOP.

PSEUDO-HYPERTROPHIC PARALYSIS IN AN ADULT.—A case regarded as on the boundary line between the ordinary form of pseudo-hypertrophic paralysis and Erb's form of muscular dystrophy is reported in *Lancet* by Dr. Morley Fletcher. The patient, a man of 22 years, had an illness at 10 years, after which he found himself weak on the legs. There had always been difficulty in getting up stairs; a gradual increase in the weakness of the lower limbs took place, the thighs becoming thinner and the calves stouter. There is said to have been no change in the scapular muscles, a somewhat unusual feature, seeing that the pectoral muscles were apparently wasted in their lower parts. The knee-jerks were present, being less marked on the right side.

Fletcher regards his case as one of the peculiar muscular dystrophies.

T. W. BISHOP.

ON THE RELATIONS OF ORDINARY AND SENSORIAL ANAESTHESIA.—Bechterew discusses the phenomenon of the diminution or abolition of the function of the organs of special sense in cases of hemianaesthesia, especially considering the eye. He proves that it cannot be due to central causes as these always produce hemianopia, but never unilateral amaurosis. He concludes as follows: The reason why anaesthesia extending to the organs of special sense produces loss of their function (so-called sensorial anaesthesia) is, in my opinion, to be found mainly in ischaemia of the organs and a deficient adaptability of their vessels to external stimuli; aided by a less perfect action of their muscles (in eye and ear) and in direct diminution of function in those organs (nose, tongue) whose sensations can not be strictly differentiated from the sensation of touch. (*Neurolog. Centralbl.*, Nos. 7 and 8, 1894.)

G. J. KAUMHEIMER.

PAIN OF VASCULAR ORIGIN.—Laache reports four interesting cases: Case 1 was that of a girl of 27 who complained of pain, beginning two years before, in the right inguinal

region and extending gradually to the knee and calf of the leg. These pains came on upon walking for about half an hour and disappeared upon resting. She also complained of a beating in the right inguinal region and a feeling of coldness in the right leg. There was also some paraesthesia. Examination demonstrated insufficiency of the mitral valve and a very lively pulsation of the femoral artery at the point where the beating was complained of, where a decided fremitus was felt. The same phenomena were present to a lesser degree on the left side. She was kept in bed for a month. When she got up, she was able to walk for an hour without pain. Discharged improved. Within six months she returned complaining of pain in both limbs. No change in the objective symptoms. Laache believes this trouble to be analogous to the "claudication intermittente" described by Charcot, which is said to be not uncommon in horses and is due to the obliteration of a large vessel, as the femoral or even the aorta. Case 2 was that of a man aged 60, who had been syphilitic and who complained of constant burning pain over the entire body, which, within two years, drove him to suicide. Autopsy showed general arterio-sclerosis of the cerebral vessels, especially the sylvian and basilar arteries. At the middle of the latter, on the left side, an aneurism as large as a pea was found filled with an old clot. The brain was normal. Case 3 was a diabetic man of 60, who suffered with violent neuralgic pains distributed throughout the entire body. Autopsy showed extensive arterio-sclerosis. Case 4 was a woman of 34, who had a double valvular lesion. She complained of intense pain in the left half of the body and right side of the head. Ten days later the entire left half of the body, including the face, became paralyzed. Death eighteen days later. Autopsy showed an adherent thrombus 1 cm. long in the right sylvian artery and a loose clot 2 cm. long in the basilar artery. The central convolutions on the right side were softened, the lesion extending to the lenticular nucleus, which was but very slightly involved. Internal capsule was normal. Laache calls attention to the pains often felt in paralyzed limbs and states that he has observed a case of tumor in the left temporal lobe in which the first complaint was of pain in the limbs. Nothnagel has also referred to the pain in beginning aneurism and the fixed epigastric pain of the aged, which he attributes to disease of the coronary arteries. Laache also cites the pain felt before the appearance of oedema in phlegmasia dolens, and the pain of Raynaud's disease.

The darkest part of this question is as to the pathogenesis of the pain. We do not know that the vessels have sensory

nerves, although Nothnagel quotes Thoma as having found Pacinian bodies in the adventitia of the larger vessels. Laache believes that the symptoms he has described will ultimately be found to belong to the clinical picture of arterio-sclerosis. (*Deutsche Med. Wochenschr.*, No. 13, 1894.)

G. J. KAUMHEIMER.

MERYCISM.—The peculiar case of a ruminating human being is presented by Dr. W. A. Hammond, (*N. Y. Med. Jour.*, July 28, 1894.) His case was that of a boy of 19 years with a mental condition approaching imbecility. Every meal was regurgitated in from half an hour to an hour after it had been swallowed and it was then remasticated with gustatory satisfaction and again swallowed; liquids taken alone remained in the stomach. This action was to a certain extent under the influence of the will, as it could be accelerated, but not altogether prevented. Immediately preceding regurgitation came a sensation similar to that preceding belching, then stomach seemed to contract. The ejected food had a somewhat sweet and agreeably acid taste. Of the few cases on record, but one is reported as cured by medication and that by quinine sulphate.

Dr. Hammond trephined his patient for the mental condition, removing a button of bone the size of a dollar, regurgitation did not occur for five days; a week later a similar button from opposite side was removed and since then no regurgitation has taken place. Dr. Hammond seems inclined to attribute the curative result to the operation, but observes that it may be due to the mental improvement noticed.

T. W. BISHOP.

A CASE OF RAYNAUD'S DISEASE.—At a meeting of the Vienna Dermatological Society Kaposi presented a man aged 40, sick for eight years, with a peculiar appearance of the face, resembling scleroderma. Only the upper extremities were affected. The dorsal surface of the hands and some fingers were cyanotic, the intensity of color increasing towards the end phalanges. The fingers were cylinder shaped, shiny on the upper surface and somewhat deformed. The hands were cold and could not be completely closed. The skin of the dorsal surface of the hand was wrinkled and shiny white in spots. The radial pulse was less full and the artery narrower on the left side than on the right. Patient complained of pain and of burning and pricking sensation in

the hands. Kaposi presented another patient with an analogous affection of six years standing. For several months there were painful swellings of the superior cervical plexus of both sides. Evidently there was a disturbance in the vaso-motor innervation of the peripheral vessels in both cases. (*Wien. Med. Presse.*, No. 21. 1894.)

R. W. ROHRDANZ.

RAYNAUD'S DISEASE.—Levy has (*Trib. Med.*, Oct. 25, 1894,) collected several cases tending to show that this disorder may be of hysterical nature. It is susceptible of being aroused and of reappearing under the influence of an emotion. It may present by the transformation of this emotion into a fixed idea of sub-conscious nature, a series of sub-conscious attacks. It may disappear or be improved by hypnotism, but leaves after it an easily excitable vaso-motor system. Articular rheumatism is often recognized among the pathological antecedents of patients attacked by this disorder.

J. G. KIERNAN.

ACROMEGALY.—Dr. Kalindero (*Rev. Internl. de Med. et de Chir. Prat.*, Oct. 26, 1894.) discusses the relationships of acromegaly. He claims that the essential lesion is hypertrophy of the pituitary body. He produced specimens justifying a view that changes occur in the pituitary body. Among the conditions which he attempts to separate from acromegaly are pneumatic osteoarthropathic hypertrophy. His differential criteria would be valuable did they not depend largely on the structures attacked by the trophic change which might be the same in both disorders. The same is true of the demarcation from giantism and leontiasis.

J. G. KIERNAN.

ON NEURON DISEASES.—Goldscheider believes that neuropathology will have to be rewritten on the basis of the nerve-units or neurons. The motor tract consists of two neurons, the indirect motor neuron of Kölliker, (motor neuron of the second order of Waldeyer,) comprising the cortical cell with its prolongation, which finally becomes a fibre of the pyramidal tract, and the direct motor neuron of Kölliker, (motor neuron of the first order of Waldeyer) comprising the ganglion cells of the anterior horn, with their prolongations forming

the nerve trunk with its end-organs. The sensory paths are similarly divided, one neuron (direct sensory of Kölliker) consisting of the cells of the spinal ganglion, the peripheral nerves, and the prolongations of the ganglion cells to the posterior horn, the other consisting of the connections between this point and the sensory centers of the brain. He states that in spinal muscular atrophy, the direct motor neuron is affected, while in amyotrophic lateral sclerosis, both motor neurons are involved. Tabes, on the other hand, is principally a disease of the direct sensory neuron. His line of argument is too extended to be reproduced here, but the above gives a fair idea of his views. (*Berlin Klin. Wochenschr.*, No. 19, 1894.)

G. J. KAUMHEIMER.

THERAPEUTICS.

TREATMENT OF ASTASIA-ABASIA.—R. Friedländer has had the best results in this disease from systematic gymnastic exercises. He gives the course as follows: 1, passive movements in the recumbent position; 2, active movements against increasing resistance in the recumbent position; 3, the same in a sitting position; 4, the same while standing; 5, standing without assistance; 6, preparatory movements for walking; 7, walking. He begins with No. 1 and adds each successive number when the patient is ready for it, so that at the final stage the entire list is gone through with at each seance. The duration of treatment is from two to three months. With the exception of the menstrual period, the treatment is given daily. (*Neurolog. Centralbl.*, No. 10, 1894.)

G. J. KAUMHEIMER.

BRAIN TUMOR, PROBABLY TUBERCULAR, IN A CHILD, TREATED WITH LARGE DOSES OF IODIDE OF POTASSIUM WITH MARKED IMPROVEMENT.—Patient, 7 years of age, complained of severe headaches which occurred almost daily and lasted for hours. This condition had lasted for two years, gradually becoming worse. An examination showed defective vision and slight paralysis of right side, especially in lower extremity; was put upon iodide of potassium, 6 grains daily, increased to 33 grains daily, headaches were lessened in frequency. Iodide increased until the child was taking 103 grains daily. This was continued from November, 1893, to February, 1894, and

then decreased to 90 grains daily. Headaches gradually decreased until present time when they practically ceased, paralysis much less marked, vision improving. History of this case given by Dr. Groff. (*N. Y. Med. Jour.*, July 14, 1894.)

B. M. CAPLES.

BUTYCHLORAL HYDRATE AND BLOOD PRESSURE.—Lahousse (*Arch. de Pharmacodyn.*, Feb. 1, 1894,) concluded that butylchloral hydrate produces a notable decrease of blood pressure which varies in duration from some minutes to some hours after its injection. This decrease is due to paralysis of the blood vessels of peripheric origin. It relaxes the heart in medium doses by paralyzing the intracardiac impulsive centres. Blood pressure returns to the normal state in strychninized animals. A sufficient dose suppresses blood pressure, increase due to asphyxia, only during the height of its action. It acts on the increase of blood pressure, due to reflex action of the vaso-constrictor centres of the medulla, in the same fashion as on the increase, due to the direct action on these centres of the blood in asphyxia.

J. G. KIERNAN.

TREATMENT OF CHOREA.—Dujardin-Beaumetz remarks (*Bull. gen. de Therap.*, March, 1894.) states the first procedure in treatment of chorea is to determine the type; chronic chorea, double athetosis and cerebellar heredoataxy are incurable. True chorea may be divided into two classes: Chorea of rheumatismal origin and chorea, due to hysteria (which is pretty frequent in childhood.) In the first it is wrong to rely on the salicylates alone. Antipyrin in gram doses four times daily in punch syrup gives better results. Neither phenacetin nor asaprol are of much value, but exalgin is. Legroux finds potassium bromide of more value. The dose of exalgin is 4 to 75 centigrams, taken in 4, 5, 6, 7 doses. The single dose should not exceed 30 centigrams at any time.

J. G. KIERNAN.

EYE TREATMENT OF EPILEPTICS.—Ranney (*N. Y. Med. Jour.*) concludes an able article thus: In epilepsy an examination of the eyes (for refraction) and of the muscles (for heterophoria) is the first and perhaps most important step toward a search for sources of reflex nervous disturbance.

All preparations of bromides and other drugs that tend to control the seizures should be withheld, as a rule, from an epileptic patient until all possible sources of reflex irritation have been scientifically sought for and as far as possible removed. He observed many cases of chronic epilepsy relieved of convulsive seizures as long as the full effect of atropine upon the ciliary muscle was maintained. Ranney concludes that in all cases thus far treated by himself 90 per cent. of chronic epileptics have been better without bromides, after satisfactory correction of their eye defects.

T. W. BISHOP.

ELAEOMYENCHYSIS.—Dr. J. L. Corning (*N. Y. Med. Jour.*, April 14, 1894.) records his experience with this treatment of chronic local spasm by the injection and congelation of oils in the affected muscles. He reports a case of severe clonic spasm of the splenius treated by injection of oil of theobroma mixed with paraffin, the oil being of such consistency as to readily congeal by use of the ether spray after injection, thus forming a sort of intermuscular splint for the injected muscle. In this case spasms ceased immediately after conclusion of the operation, this was followed by simply a certain degree of morbid toniccity, which was soon followed by recovery.

Dr. Corning explains the efficacy of this procedure on the grounds that it diminishes the irritability of the contractile muscle, partially fixing it in a condition of extension, and affirms from personal experience that a non-irritating oil may be injected and allowed to remain an indefinite time without the least inflammatory reaction.

In view of the unreliability of the polytherapy heretofore used, Corning predicts usefulness and adoption of this method.

T. W. BISHOP.

THYROID EXTRACT IN EXOPHTHALMIC GOITRE.—Voisin (*Trib. Med.*, Oct. 25, 1894,) reported a case of exophthalmic goitre very rapidly improved by thyroid extract. Dreyfus-Brissac, in discussing the case, pointed out that according to the position taken by Voisin, the disease should be always due to disorder of secretion of thyroid gland whether excess or deficiency. Generally there was not improvement, but aggravation produced by this treatment. Beclere cited several cases of exophthalmic goitre treated by thyroid extract, in which thyroidiza-

tion resulted. Voisin, recognizing cases of this kind, pointed out that their existence made the results obtained in his own case the more remarkable.

J. G. KIERNAN.

THE ANTIPARALYTIC ACTION OF ELECTRICITY IN PRESSURE-PARALYSIS OF THE RADIAL NERVE.—Delprat has recently published an article upon this subject, in which he concludes that the good results observed after the use of electricity are due to suggestion, and that as good or better results are to be obtained by sham treatment. (THIS REVIEW, Vol. 3, page 335). Remak, in answer to this article, (*Zeitschr. f. Nervenheilk*, Bd. IV., H. 5 and 6) gives the statistics of 64 cases. An immediate improvement resulted in 84.3 %. In 29 cases treated until cured, in which electricity had an immediate result, the treatment required an average of 11.5 days (3-32)*, the paralysis lasting from the beginning an average of 17 days (4-73). In 35 cases treated until cured, the average duration of treatment was 14.3 days (3-41), of the paralysis 20.5 days (4-73). The cases treated within the first 8 days had an average duration of 14 days. The average duration of Delprat's case was over 30 days. Remak deduces from this that the effect is physical, not simply psychical.—(*Berlin Klin. Wochenschr.*, No. 19, 1894.)

G. J. KAUMHEIMER.

GERMAIN SÉE ON FERRATIN.—The distinguished French savant, Prof. Germain Sée, reported his views on the therapeutic value and place of Ferratin to the Academy of Medicine of Paris, August 21, 1894. Prof. Germain Sée said that he had found occasion during his attendance at the Hotel Dieu to employ Ferratin and to study its effects on various clinical cases, which he took pleasure in reporting. Ferratin seemed to have a direct significance in the nutrition of the tissues, and even after prolonged use it produced no derangement of the stomach or intestines. It had a pronounced curative effect. It acted mildly astringing, without causing hurtful excitement or constipation—disturbances commonly following the use of ordinary ferruginous preparations; but as a remarkable fact, it caused a strong increase of appetite—always precarious and capricious in anemic patients—and also regulated the movements to a normal condition. Its adminis-

* Figures in parenthesis give maximum and minimum number of days.

tration was free from any unpleasant side or after-effects. Ferratin, 0.5 to 1.5 grammes per day in divided doses, was primarily a valuable food product; it excited appetite and thereby offered a powerful adjuvant in permitting the absorption of food, and it contained a fixed proportion of iron which was highly assimilable and thus replaced a vital insufficiency.

The administration of Ferratin, said Prof. Germain Sée, was indicated in

Those suffering from anemia from hard work, though the patient have the appearance of good health;

Those, of both sexes, affected with chlorosis;

Those weakened by too rapid growth and puberty;

Those fatigued by study; and, in short, all in whom a diminution of red blood corpuscles had ensued, due no matter to what causes.

Prof. Germain Sée concluded his report by promising that he would keep the Academy informed as to his further studies of Ferratin, which he was conducting simultaneously at the Hotel Dieu, in his medical clinic, and in his physiological laboratory.—*American Therapist*.

PROLONGED BATHING IN INSOMNIA.—Leredde (*Trib. Med.*, Oct. 25, 1894,) has systematically employed prolonged bathing of the extremities in insomnic hysterics and cardiacs. Under the influence of this treatment there is recognized marked afflux of blood; the more considerable, the more the temperature is elevated. There can thus be produced congestion which may serve to diminish the blood contents of the viscera. The patient, seated, plunges his legs into a vessel sufficient to contain them to the knee. The arms are plunged into two vessels to the elbow. The temperature of the water is gradually raised from 91° to 117°. The duration of the baths is one hour. This is indicated in all visceral congestions and hemorrhages. It acts like a temporary bleeding. It should be used in all inorganic neuroses. It produces sleep. It is contra-indicated in cardiac patients who have had attacks of syncope. In all cases with heart disease or anaemia, it should be applied with caution.

J. G. KIERNAN.

LACTOPHENIN.—This new synthetic compound has been recommended by Schmiedeberg, after experimental trial on animals, as an antalgic and antipyretic. Landowski has found its action similar to that of phenacetine in similar doses.

Jaquet and v. Jaksch praise its antipyretic action. Scheben reports very favorable results in neuralgias and rheumatic pain, its advantages lying in the combination of antipyretic and hypnotic properties.—(*Berlin Klin. Wochenschr.*, No. 25, 1894.)

G. J. KAUMHEIMER.

MIGRAININ. — Ewald reports very favorably on this new remedy. He has used it in a number of cases, with constant success. Of course it does not prevent the recurrence of the attack at the usual time, but he states that if taken in time it will certainly prevent it or cut it short, instead of being simply retarding it, as so many other remedies do. He has used it in his own family in cases which had resisted all other remedies, and constantly with good results. The writer has used it in one case of tormenting habitual headache, of very long duration, the patient reporting relief continuing during the day, from a dose taken in the morning.—(*Berlin Klin. Wochenschr.*, No. 21, 1894.)

G. J. KAUMHEIMER.

THYROID EXTRACT IN MYXŒDEMA.—Dr. Bécclère reports (*Mercredi Med.*, Oct. 17, 1894,) the case of a woman to whom was given by mistake 92 grammes of thyroid extract in eleven hours. Her myxœdematous symptoms disappeared to give place to those of thyroid intoxication, which Bécclère calls thyroidism. The first of these symptoms is a tachycardia, with marked instability of the heart beat. The other symptoms are rise of temperature, insomnia, agitation, polyuria, albuminuria, glycosuria, incomplete paraplegia, heat flashes, hyperidrosis, increased respiration, temporary tremor of the arms, protrusion of the eyes, fixedness of look. These symptoms present such a decided resemblance to Basedow's disease that Bécclère attributes their production in his patient to an exaggerated secretion of the thyroid gland. His patient, who had before treatment no hysterical stigmata nor antecedents, was taken suddenly at the height of her thyroid intoxication with a temporary asphasia, with right brachial monoplegia and anæsthesia clearly of hysterical nature.

J. G. KIERNAN.

NARCEIN (ANTISPASMIN).—Claude Bernard praised narcein as possessing the advantages of a pure hypnotic action with a minimum of toxicity. Merck has recently introduced a prep-

aration of narcein of uniform composition under the name of antispasmin (narceinsodium-sodium salicylate). Rabow (*Therap. Monatsh.*, May, 1894.) finds that its hypnotic action is very uncertain. As a sedative in chorea, nystagmus, paralysis agitans, it is valueless, but it exerts a sedative action in irritative states of the respiratory organs and intestinal tract. It is however, forty to fifty times weaker than morphine. This fact would make it valuable in pediatric practice. Demme has praised it in pertussis in doses of 0.01 to 0.1 gram. (*Berlin Klin. Wochenschr.*, No. 25, 1894.)

G. J. KAUMHEIMER.

THE OPIUM HABIT.—Dr. Patrick Hehir, a surgeon-captain in the Bengal army, recently reported some of his observations on the effects of the habitual use of opium. As Indian opium is said to be characterized by its poverty of morphine, and by containing a large proportion of an antiperiodic principle, the report of Hehir has not the value it otherwise might possess. He states that 12 % of the Mohammedans, 7 % of the Hindoos and 5 % of the Pariahs and other classes are addicted to its use. He estimates that there are 1,400,000 opium eaters in a population of 11,000,000; the average amount consumed by each devotee being about eight grains a day. In some families opium is given to all the children, even to those who are only a month old, while in others it is given only to those of the children who have shown a predisposition to intestinal ailments, general weakness or susceptibility to fever, cold, or some other infirmity.

Hehir concludes from his observations that opium used in moderation enables a person to do more work on less food, and with less sleep, that it endows him the time being with an unwonted cheerfulness and disposition to work; that it never produces any organic disease, its chief ill effect being constipation; that it calms the irritated mind, allays ruffled feelings, reestablishes the mental equilibrium when it has been destroyed; conquers resentment; is opposed to impulsive action of any kind, and keeps emotional displays within bounds.

T. W. BISHOP.

ON THE MODERN TREATMENT OF DISEASES BY ORGANIC JUICES.—Fürbinger approaches the discussion of this subject with a great deal of scepticism. The good results said to be due to Brown-Sequard's orchitic fluid, which he has not been

able to observe in his own cases, he believes to be due to suggestion. The later development of Brown-Sequard's method by Poehl, of St. Petersburg, who uses spermine, has not furnished as yet much better results. Perhaps later studies may show that in selected cases, these methods will do more than they have heretofore done. In regard to the use of the thyroid gland and its extracts in myxoedema but one opinion can be held, although numerous untoward accidents have been recorded. He warns against the use of this powerful agent in the heterogeneous class of diseases, in which its use has been reported without scientific indication. He has had no result from the use of pancreatic extract in diabetes. In regard to the cerebral juice of Babes-Paul he has had no experience, while he considers the theory of the action of muscine, cardine, nephrine, etc., as unscientific and irrational. (*Deutsche Med. Wochenschr.*, No. 13-14, 1894.)

In the discussion of this paper and one by Goldscheider, in which the latter absolutely agreed with Fürbringer, from his experience in Leyden's Clinic, Leyden, Senator, Posner and Rothman all agreed that the only good results were purely subjective, except, perhaps, the improvement seen in myxoedema after the use of thyroid extract. (*Deutsche Med. Wochenschr. Vereins-Beilage*, No. 1, April 5, 1894.)

G. J. KAUMHEIMER.

PSEUDOHYOSCYAMINE. — Guicciardi (*Revista Sperimentale*, XXII., p. 172.) finds that the physiological action of this new drug, extracted by Merck from *Duboisia Myoporoides* is analogous in that of the already known mydriatics. The pure alkaloid, injected hypodermically in a watery solution, in the quantity of one to five milligrams, causes, in rapid succession, pupillary and cardiac phenomena, psychic and motor torpor, very similar to those from the sulphates of atropia or duboisia, but less uncomfortable than those of the first named, and less intense and lasting than those of the last. The therapeutic effects, tested in cases of mania acute. imbecilitas agitata and hysteria, showed it to be not reliably hypnotic, but markedly sedative.

In practice, therefore, this drug can be employed as a substitute for sulphate of duboisia, particularly if a rapid and transient effect is desired, as, for example, in cutting short a hystero epileptic attack.

H. M. BANNISTER.

PENTAL AN EXCELLENT ANÆSTHETIC.—P. F. Féodoroff has experimented with pental in general surgical anæsthesia. This very stable substance does not become decomposed either in light or air; its specific gravity is about that of ether, and, like the latter, it is very volatile. Care must be taken to keep this substance removed from the fire; it burns with a very bright flame, but it has no explosive properties. The vapor of pental does not irritate the mucous membrane. According to Féodoroff, the duration of pentalization is from one to two minutes, and the condition of anæsthesia once induced, it may be prolonged from two to five minutes. In about 60 per cent. of the cases the radial pulse is not modified, but otherwise the pulsations become more frequent, and sometimes there is arrhythmia. It is principally during the first minute that disturbances of the circulation show themselves; it is, therefore, very necessary to be circumspect during the primary inhalations, and not to have recourse to the concentrated vapor of pental, except after the first minute, when the action of the heart will already be regularized. It is important to call attention to two peculiar effects of the drug: 1. Analgesia occurs while consciousness is still retained; the patient executes all the orders of the physician, feels the contact of the instrument, but does not feel pain. It would, however, be imprudent to operate before the complete loss of consciousness; the majority of accidents which have happened during the use of pental were due to reflexes occurring in subjects insufficiently anæsthetized. 2. From ten to fifteen minutes after a first administration of the drug it may again be used without its action being weakened; it would even appear that the subjects are still more susceptible to its effect. One must also be careful never to operate with a patient in a sitting posture, but always in the recumbent position, for fear of dangerous accidents. To resume: Pental is an excellent anæsthetic in operations of short duration.—*Vratch*, Nos. 3 and 4, 1894. (From *Univ. Med. Journal*.)

THERMODYN, according to Dr. Schmitt (*Bull. gén. de Thérap.*, Sept. 8, 1894,) is chiefly as a succedaneum to phenacetin, both as an antipyretic and antithermic.

J. G. KIERNAN.

TETANUS TREATED WITH ANTITOXIC SERUM.—Giusti and Bonaiuti describe a case of tetanus treated with antitoxic serum. The case is remarkable on account of its clinical

course, its successful issue and the amount and power of antitoxine used. The patient, a robust man, received several severe lacerated wounds on face, one of these being deep and dividing the zygomatic process. All the wounds were freely contaminated by earth. Notwithstanding prompt and careful cleansing with antiseptics, trismus and exalted sensibility made their appearance on the day after the occurrence. Twenty days after the accident undoubted tetanus made its appearance, characterized by great respiratory and cardiac difficulties and obstinate vomiting, in addition to the more usual symptoms of a severe case. After three days of unavailing application of the ordinary treatment—chloral, calomel, vapor-baths, etc.—a consultation was held with Tizzoni, who at once instituted the treatment with antitoxic serum from a highly immunised horse (antitoxic equivalent 1: 10,000,000). On February 1st two injections of this serum (40 and 20 c. c.) were given. After this the patient experienced a period of calm and got a little sleep. Next day, temperature being high and tetanic symptoms still prominent, two injections (20 and 10 c. c.) of serum from an immunised dog were given (relative power 1: 10,000,000). The tetanic symptoms then disappeared for a time, but reappeared, however, in a very mild form during the night. On February 3d an injection of dog serum (10 c. c.) was given in the morning, and in the evening 50 centigrammes of alcohol precipitate of the horse serum dissolved in water. On February 4th to 8th further injections of dried precipitate of dog serum were made, although the nonappearance of further tetanic symptoms probably rendered some of these superfluous. From this time the patient's condition improved steadily and he was discharged cured. Attention is drawn to the early symptoms appearing on the day after the accident, and due probably to the absorption of ready-formed toxin in the contaminating earth. Second, to the occurrence of a severe attack of "cephalic" tetanus after a long incubation period of twenty-one days. Third, to the complete failure of ordinary measures and the rapid success of the specific treatment. Lastly, it was suggested that the dog serum had probably a more potent effect than the other variety in reducing temperature. The dried precipitate of serum was somewhat difficult to use on account of its imperfect solubility and the risk of contamination during the process of dissolving it.—(*Brit. Med. Jour.* June, 1894.)

B. M. CAPLES.

CURARIN IN TETANUS.—The active principle of curarin was first isolated by Böhm in a manner which guaranteed a pure

product. Böhm's pupil, Tillie, carefully examined this preparation pharmacologically and placed the smallest dose, which, used subcutaneously, would cause a complete paralysis of all voluntary movements in a frog, at 0,00000028 grams. (normal dose). He was enabled by careful use of small doses to completely paralyze a rabbit and keep it alive for several hours without artificial respiration.

F. A. Hoffmann first used curarin on the human being in a case of typical tetanus in a 20-year-old man. Injection of 1 milligram did not change the attacks, but caused a slowing of pulse and respiration; 3 milligrams reduced the number of attacks; 12 milligrams caused peculiar twitchings of the lower jaw, salivation, indications of singultus and intermittent respiration. Patient recovered from the tetanus. Hoche (*Neurol. Centralbl.*, No. 8) used curarin in from 0.3 to 0.7 milligram doses in a case of tetanus in Fürstner's clinic. Duration of attacks was shortened and general condition improved without paresis of any part of the body. The effect was noticed in from ten to twenty minutes, but was of short duration. Hoche thinks the system becomes rapidly habituated to the drun. (*Wien. Med. Blaett*, No. 24, 1894.)

R. W. ROHRDANZ.

ANTI-TOXIN TREATMENT OF TETANUS.—Prof. v. Hacker presented two cases of tetanus cured by anti-toxin before the Royal Society of Physicians in Vienna. The first case, a man aged 22, developed tetanus with typical symptoms fourteen days after injury to the hand. Slight irritation, as opening a door, caused contractions. Narcotics were first used with some passing relief. Anti-toxine was then substituted, one half of a 4½ gram bottle being injected at once and the remainder, divided into four parts, was injected during the next four days. The following week showed a change in the type of the disease. The spasms were less frequent and severe. Treatment was begun May 3. On May 14, 25 attacks were noticed; May 15, 15; May 16, 5; May 21, none. The second case was a boy aged 13 years, who developed tetanus after injury with a saw. Injection of anti-toxin promptly relieved all symptoms in sixteen days. In both cases the injections gave rise to an urticarial exanthem. (*Wien. Med. Blaett*, No. 25, 1894.)

R. W. ROHRDANZ.

THE IMPORTANCE OF VERBAL SUGGESTION IN NEURO-THERAPY.—Prof. Hirt read a paper on this topic before the neuro-

logical section of the International Medical Congress. The following is a summary of its contents:

1. Verbal suggestion can be used therapeutically in certain nervous diseases; sometimes results are obtained which cannot be secured in any other manner. 2. Functional disturbances of single cerebral or spinal nerves are suitable for treatment by verbal suggestion; motor disturbances respond more readily to treatment than sensory. 3. Diseases of the whole nervous system are rarely benefited; neurasthenia and hysteria are slightly improved; epilepsy not at all. 4. Diseases with an anatomical basis, as tabes, paralytic dementia and multiple sclerosis are not amenable to suggestion-therapy; single symptoms are sometimes relieved. 5. Verbal suggestion is not to be confounded with habitual hypnotism; the former is as harmless as the latter may be harmful. Never has a patient been injured by verbal suggestion. (*Wien. Med. Presse*, No. 22, 1894.)

R. W. ROHRDANZ.

SURGERY AND TRAUMATIC NEUROSES.

MOTOR DISORDERS FROM OLD SKULL-TRAUMATISMS.—Dr. C. Faguet concludes (*Revue. Internl. de Med. et de Chir. Pratig.*, Sept. 10, 1894,) that skull traumatism may produce at a very variable and often very late period, numerous lesions of very varied nature manifest in motor, sensitive, sensory and intellectual disorders, which may coexist. Motor troubles are most frequent and their pathogeny is best established. They are ordinarily dependent on palpable anatomo-pathological lesions accessible to surgical intervention. These lesions are: Osseous: bone spiculæ, bone roughening, exostoses, hyperostoses, vicious bone healing, meningeal pinches by bone. Hæmorrhagic types; inflammatory types: meningo-encephalitis, abscess, etc. Foreign bodies. Tumors. Analysis of the symptoms is of the highest importance from the standpoint of surgical intervention. Trephining, a benign operation when practiced under strict asepsis, is indicated: When motor disorders arising from a skull traumatism are symptomatic of a material irritation, or of a functional disorder of the motor centres of the cerebral cortex, and always when there is a clear relation between the skull lesion (depressive cicatrix, etc.) and the paralytic or convulsive symptoms. When there probably exists a relation between the symptoms of traumatism and the lesion, although such a relationship may not be

superposable according to the existing state of cranial topography. Finally, in doubtful cases where the semeiology is not clear, an explorative operation was justifiable in view of benignity. The point of application of the trephine will be determinable according to ordinary indications, according to signs of localization, the presence of scalp cicatrices, skull depressions, etc., recognizing, however, that these are not always in relation with intra-cranial lesions. The skull-box opened, the conduct of the surgeon must be determined by the extent and nature of the lesion. Success often rewards bold yet conservative surgery.

J. G. KIERNAN.

PICKAXE WOUND OF THE BRAIN.—Dr. Roberts reports a case of pickaxe wound of the brain. Brain substance oozed through the wound. Shortly after the injury he had laid open the skull and found pieces of bone driven into the brain. His finger passed nearly an inch down into the brain structure. He washed away with a stream of bichloride solution the soft brain tissue, stuffed a piece of gauze into the wound to make pressure, sewed up the scalp wound at the ends, allowing the gauze to stick out at the center; gauze removed at the end of twenty-four hours. At the time of reporting the case the wound was healed and the man was well; pulsation of the brain could be seen where the bony wall was absent. (*N. Y. Med. Jour.*, June 9, 1894.)

B. M. CAPLES.

A CASE OF EXPERIMENTAL APHASIA.—Dörrenberg reports the following case: A young man of 18 fell against the root of a tree. He arose without aid, but could not talk at first, later his speech was unintelligible. There was neither loss of consciousness nor profuse hemorrhage. When D. saw him the next morning, his speech was very difficult to understand. Motion and sensation were normal. A round wound was found on the left side, situated 7 cm. below the sagittal suture and 9 cm. above a line drawn between the upper edge of the orbit and the meatus auditorius, on a perpendicular line 1.5 cm. in front of the latter point. It was found that a round piece of bone, about the size of a silver quarter-dollar had been punched out and driven about 1 cm. deep into the brain, pushing the uninjured dura before it. When this piece was pulled outward, speech became almost normal at once. If it was pushed inward, almost absolute motor aphasia

resulted so suddenly that the patient became speechless in the middle of a syllable. Even during total aphasia, the patient could answer intelligently and promptly in writing. Speech became perfectly normal within two days after removal of the fragment and has remained so. (*Berlin Klin. Wochenschr.*, No. 18, 1894, p. 433.)

G. J. KAUMHEIMER.

CASE OF TRAUMATIC HEMORRHAGE INTO THE BRAIN.—Patient received injury to cranium about half inch to left of occipital protuberance; on following day had fit and remained in semi-conscious condition for three days. During third night became less conscious and had eighteen fits, each commencing with twitchings of left angle of the mouth and of left fingers, and were characterized by stertorous breathing, foaming at the mouth; convulsions chiefly of left side and complete unconsciousness. Fits occurred at intervals of several days. The history and symptoms pointed to cerebral lesion, probably hemorrhage. Trephining was performed, whereupon a conical shaped blood clot, with its apex pointing toward the center of the brain, was discovered. Uninterrupted and complete recovery took place.—(H. E. Harris in *Lancet*, June, 1894.)

T. W. BISHOP.

INGRAVESCENT CEREBRAL HEMORRHAGE TREATED BY LIGATION OF THE COMMON CAROTID ARTERY.—Drs. F. X. Dercum and W. W. Keen, of Philadelphia, presented a joint paper with this title at the last meeting of the American Neurological Association. They reported two cases. In the first case the symptoms pointed to a slowly progressive capsular hemorrhage, extending over three days before ligation of the common carotid was resorted to. The symptoms were steadily progressive and threatened a fatal termination. Ligation of the carotid, as proposed by Mr. Horsely, promptly arrested the symptoms, and the man made an excellent recovery. Months afterward merely symptoms of a spastic hemiplegia persisted, but they were not very marked. The second case was one in which the symptoms pointed to a progressive hemorrhage, occupying eight hours. The patient's condition was so grave at the time of the operation that little was hoped from it; and indeed it proved useless, patient dying several hours afterwards.—(*Med. Record*, Aug. 11, 1894.)

R. W. ROHRDANZ.

TAPPING THE LATERAL VENTRICLES.—Frank (*Chicago Med. Recorder*) gives the indications for tapping, as follows: For distension of ventricles, from acute simple or tubercular meningitis; for effusion of blood into ventricles from trauma or disease it makes recovery possible. For abscess involving the ventricle it is immediately and imperatively demanded; for effusion into the ventricles from brain tumors it may afford relief; for chronic hydrocephalus with moderate distension of ventricles, without enlargement of the head, it may afford relief; for chronic hydrocephalus, great distension of ventricles and enlargement of head, it will lead to fatal results.

T. W. BISHOP.

SYMPTOMS OF CEREBRAL ABSCESS RELIEVED BY TREPANATION.—Prof. v. Hacker presented a 19-year-old girl before the Royal Society of Physicians in Vienna, whose skull had been trephined to relieve cerebral symptoms, following a chronic middle ear inflammation. The symptoms were those of cerebral abscess; severe localized left-sided headache, vertigo, somnolence, slowing of pulse and cramps beginning in the right lower facial area and spreading to the upper extremities. Left abducens and right facialis were paretic. Skull was trephined above left mastoid process. Dura did not pulsate, but protruded and was of a yellowish-green color. Considerable cerebro-spinal fluid, but no pus, was removed with a Pravaz syringe. The left sinus was exposed still more, and dark colored liquid blood was found. Pulsation was absent. No pus was found, nevertheless a decided improvement was noticed the next day and a complete recovery followed.—(*Wien. Med. Blaett.*, No. 24, 1894.)

R. W. ROHRDANZ.

OPERATIVE TREATMENT OF MICROCEPHALUS.—J. H. Ackermann (*Samml. Klin. Vort.*, No. 90) concludes: 1. Craniotomy for microcephalus is a justifiable operation when performed by request of the proper persons upon patients not physically too degenerate. 2. The operation must be moderate in extent and may be repeated if necessary. The bone is best removed with forceps and trephine. The periosteum must be removed to the same extent as the bone. 3. The results obtained, as might be expected, are very moderate. Cases which did not present a localized lesion of the cranium or its contents have furnished the best results. But even in cases in which convulsions, athetosis, muscular rigidity and

spastic symptoms, changes in the eyes or local paralysis were present, positive improvement has resulted. 4. We cannot at present say which cases should, and which cases should not, be submitted to operation, nor can we promise any beneficial result beforehand. Cases of premature synostosis of the sutures and fontanelles will probably require the operation oftenest. Neither the age at which the operation is performed, nor the character of the disease (congenital or acquired) have any influence upon the result. 5. In order to enable us to form a correct judgment in the future as to the value of this operation, it is of the utmost importance to describe each case fully and exactly and to observe it for a long time after operation.—(*Neurolog. Centralbl.* No. 10, 1894.)

G. J. KAUMHEIMER.

HYSTERICAL APOPLEXY FROM LIGHTNING STROKE.—Dr. M. J. Comby ("*Mecredi Med.*," May 30, 1894.) reports the case of a 38-year-old woman, who, during a storm, took refuge near a tree which was struck by lightning, killing two children by her side and rendering her unconscious. On regaining consciousness she was completely hemiplegic on the left side. This hemiplegia vanished in three weeks. Two years later the same cause produced the same phenomena, which reappeared a year thereafter during a thunderstorm. At this time she came under Dr. Comby's care and the hysterical nature of the case was established.

J. G. KIERNAN.

TRAUMATIC HYSTERO-NEURASTHENIA.—Excluding all cases of pure traumatic hysteria, the following (*Med. Record*, May, 1894.) are some of the characteristic manifestations of traumatic hystero-neurasthenia. First, there are psychic disturbances, as alteration in the character, in the intellect; trouble with the memory; frequent vertigo and sometimes fainting; insomnia and difficulties of speech. There are abnormities of sensation, as pain, headache that is almost constant, pain in the sacrum and spine, hyperaesthesia on the injured side, together with anaesthesia of touch, pricking and temperature; reflexes variable; muscular sense may be lost; attitude and gait characteristic; diminution in muscular force often, fibrillary twitchings in muscles of the face and limbs, and paralysis and contractures may be present, similar to those of hysteria. Diplopia, amblyopia, dyschromatopsia,

polyopia, together with concentric narrowing of visual field, are some of the eye symptoms.

The heart and vessels often suffer, also stomach and sexual organs; tachycardia is not uncommon. The prognosis varies with various authorities. Vibert and Erichsen consider it grave; Judd, Davidson and Price are more hopeful. Oppenheim takes the darkest possible view. Blum fails to see anything alarming in the situation.

T. W. BISHOP.

PSYCHOLOGICAL.

PATHOLOGY AND SYMPTOMATOLOGY.

CERTAIN NEGLECTED SCIENCES WHICH ARE AUXILIARY TO MEDICINE.—This is the subject of an address by Dr. Herz, delivered before the Vienna Medical Club. He calls attention to the little use made of molecular physics in modern medical researches and then refers at length to philosophy as a neglected science in medicine. He regards the Kantian or so-called critical philosophy as a theory of the understanding which has been worked out in detail, and declares that psychiatry must base itself upon such a theory just as pathology is based upon physiology. Instead of that, however, psychology has been usually taken as its starting point. Meynert attempted to place psychiatry upon a scientific basis, but he was a disciple of Locke and the sensualistic empirical school; while Kant's theory, being based upon the pure forms of thought, (and therefore, universal) must be regarded as the true foundation. Herz argues, with Hartley, that every change of consciousness is caused by vibrations transmitted by the nerves to the brain from the outside. Secondly, that every a priori idea, which is a function of thought, is expressed anatomically in the brain; and further, he believes with Meynert that every sensation has a material substratum in the brain, and that every group of sensations or ideas is expressed by a corresponding group of correlated cells.

Now Kant's critique concerns itself with the normal or pure form of thought. Psychiatry is the pathology of the forms; it treats of the errors of sensation, of the judgment, of the understanding and of the reason. There are four false forms of judgment: 1. Where the content of the judgment involves a contradiction as, "parallel lines which cut each other." 2. Where the content is false a priori as—"I am almighty." 3. Where the content is false a posteriori, as, "I am Rothchild." 4. Where the content is lacking in causality, as, "to-morrow I shall die."

By the modality of a false judgment, one can determine what part of the nervous system is affected. Judgements are problematic, assertoric or apodictic. The understanding

determines the first, a judgment of possibility; the judgment and sensation the second; existence or non-existence; reason determines the last, i. e., its necessity. Reflection and investigation or dialectic play a great part in the pathology of false judgments. Reflection precedes a judgment, while dialectic follows and attempts to determine the cause. Where the reflection is lacking the patient makes a rash judgment, though he may still have enough dialectic to see that the judgment is false. In other cases the dialectic is entirely absent; in still others the dialectic is so strong as to falsify all the experience of a patient to prove a judgment which he considers true. The content of a diseased mind is exhaustively divided by the four forms of the Kantian idea of nothing: 1. *Ens rationis*; 2, *nihil privativum*; 3, *ens imaginarium*; and 4, *nihil negativum*. The first is a true form with a false content—the glass body of the hypochondriac. The second is the form with the denial of any content, as, the “soulless, scentless, tasteless” ideas of the paranoiac. The third is the empty form of an intuition, as the fatality of the number 13, the evil eye, etc. The fourth is a logical contradiction between form and content, a square circle.

The idea of absolute nothing, as death, destruction of the world, is important as the source of painful result. Herz cites a case where reading a description of the destruction of the world resulted in total amentia. (*Wien. Med. Presse*, No. 20, 1894.)

R. W. ROHRDANZ.

MENTAL OVERWORK IN PUBLIC AND PROFESSIONAL MEN.—Dr. Chas K. Mills, of Philadelphia, some time ago delivered a lecture at Washington upon mental overwork and premature disease among public and professional men. His conclusions are interesting in this connection. The causes are in the line of those already stated as applicable to mill operators of the higher order. Of course, the matter of under feeding is not so potent here as in the poorer classes, but it undoubtedly does influence the result in a degree. Dr. Mills' conclusions are as follows:

1. Intellectual work does not of itself injure health or shorten life, but mental overwork, particularly when associated with emotional strain, is a frequent cause of nervous breakdown and premature disease.

2. The average longevity of men in the higher walks of public life is less in this country than in England. Politics here is not, as there, in the best sense a vocation, and our

public men in many cases succumb in health, or fail to attain long life, because they go into careers unprepared by inheritance, education and training for the severe demands to be made upon their powers.

3. Health and life are sometimes lost through forgetfulness of the fact that mental strain and overwork are particularly dangerous to those in middle life or advanced in years who attempt brain work and responsibilities to which they have not been accustomed. The effects of suddenly-imposed mental strain upon these classes are especially disastrous.

4. If not subjected to unusual mental or physical strain, public and professional men as well as those in other walks of life, although afflicted with organic diseases, may live in comparative comfort and be able to do a moderate amount of work for many years.

5. Among special causes of premature disease in public life are onerous and perplexing duties on Congressional committees, the uncertainties and disappointments attendant upon public positions, the great strain to which candidates are subjected during political campaigns, lack of recreation and social excesses and abuses at the National Capital.

6. Among physicians, lawyers and journalists the importance of brain work under pressure for time, and under bad hygienic conditions, is a common cause of ill-health. Defective education and pecuniary harassments are also special causes of nervous breakdown and premature disease among physicians and lawyers.

7. Comparatively few clergymen succumb completely to mental overwork, although many suffer from a mild but annoying form of neurasthenia.

8. The danger to the scientific worker usually arises from too intense and too prolonged activity of the mind in one direction. It is a danger which springs largely from the fascination which such work has for its votaries.

9. The system of severe competitive examinations in vogue in many communities saps the health of both teachers and pupils. In our schools generally educational methods are bad, recreation is too much neglected and unhealthy emulation too much encouraged. Education is not properly individualized.

10. Chronic neurasthenia is not common among men prominent in public affairs and in the professions. Such men are, however, sometimes the victim of a severe acute nervous prostration, which may result in severe organic disease.

11. Nervous strain is one of the causes of lithemia, which is of not infrequent occurrence among public and professional

men, but lithemia and neurasthenia are not interchangeable terms.

12. The warnings of mental overwork and overstrain vary with individuals and circumstances, but certain psychical symptoms and such physical symptoms as laxity or immobility of countenance, diminished resisting power, heart failure, sleeplessness, cervico-occipital pain or distress and dyspepsia, are of most frequent occurrence.

13. Insanity, particularly in the forms of melancholia and parietic dementia, is sometimes developed by brain strain and overwork. A family history of insanity is often present in such cases.

14. Phthisis, diabetes, and Bright's disease, next to insanity, are among the diseases most likely to be developed by mental overwork. Men in whose families phthisis is hereditary should carefully guard against such overwork.

15. Overtaxing the mind and nervous system may be the exciting cause of almost any serious disorder to which chance, accident, imprudence or infection exposes the individual.

16. Many diseases, not nervous in their seat or manifestation, are developed directly or indirectly as the result of mental and nervous strain, through exhaustion, impairment, or lesion of the centers of the organic functions.—(*Medical Examiner*, Sept., 1894.)

THE RELATIONS OF INFECTIOUS PROCESSES TO MENTAL DISEASE.—*The American Journal of Medical Sciences* for November, 1894, has an article by Dr. Charles K. Mills on the above subject. His conclusions are as follows:

1. Specific infection must be included among the causes of mental symptoms and diseases which precede, accompany or follow febrile and other infectious disorders.

2. Much negative evidence can be adduced in favor of acute delirium or acute mania being due to toxæmia—such evidence as is afforded by autopsies which reveal neither gross nor histological lesions; and in these cases the toxæmia probably overwhelms the patient before the production of meningitis or other disease.

3. Analogies with nervous affections, which are known or believed to be of microbic origin—such as multiple neuritis, myelitis and chorea—favor the view that insanities with similar or related phenomena and lesions are also microbic in origin.

4. The evidence afforded by careful bacteriological investigation of cases of acute insanity is thus far meager, and

shows that various micro-organisms may induce the same or similar types of mental disease.

5. The mental disorders of pregnancy and the puerperal state are probably, in a considerable proportion of cases, toxæmic, without reference primarily to childbirth; but it can not be regarded as proved that a bacillus of either eclampsia or puerperal mania is the sole cause of these affections.

ONYCHOPHAGY.—Berillon (*Ann. de Psychiat.*, August, 1894.) finds that onychophagy and habits of the same kind are very often due to degeneracy. Its frequency varies according to the locality. In certain schools but one-fifth or three-tenths of the children bite their nails. In most of the Parisian schools at least a third of the children bite their nails. Careful examination will reveal almost always stigmata of degeneracy. The children are usually more indolent than the others. They present deformities of the skull, jaws and ears. Instructors note among them marked antipathy for physical exercise, and for play necessitating sustained effort. They write badly and exhibit notable inferiority from the standpoint of manual dexterity. Their application to study is not continuous and they are not docile. In other words, they will not sustain favorable comparison with other children of the same age. Every ordinary method used to break the habit is futile. The only results of value are those obtained by hypnotic suggestion. Suggestion in the waking state is exceptionally of value. Nail-biting may persist until an advanced age.

J. G. KIERNAN.

GONORRHEAL INSANITY.—Dr. A. Cullerre (*Annales Medico-Psych.*, Sept., Oct., 1894,) makes an analysis of the literature of this subject. Venturi called attention to the question in an article published in 1891, and Cullerre, in an article published in May. Venturi's cases occurred in hebephreniacs. The types presented were stupor and hallucinatory confusion; those described by Dr. Cullerre are very similar. Gonorrhœa seems to have acted as an exhausting factor. The prognosis is favorable. The treatment is that ordinarily indicated in such psychoses.

J. G. KIERNAN.

HALLUCINATIONS IN PARETIC DEMENTIA.—Bariek concludes (*Rev. Internl. de Med.*, Oct. 10): That hallucinations are very frequent in the course of paretic dementia. Hallucinations of alcoholic origin observed among demented should be separated from those due to the psychosis. Alcoholic hallucinations involve more particularly the sense of sight and are generally painful. Paretic hallucinations are generally gay and may involve every sense. They may occur at all periods of the disorder, but often pass unperceived, whether because of their fleeting nature, or because the demented state of the patient prevents them from being deceived. They often give rise to delusions. The senses most frequently affected are sight and hearing; less frequently the sense of smell. They have been observed in one-third of the cases. They rarely are the origin of imperative acts.

J. G. KIERNAN.

INSANITY FROM OCCUPATION STRESS.—Fifty-seven cases of insanity occurring among silk-mill employees of a New Jersey city, all admitted to one asylum, are reported by Spratling in *N. Y. Med. Jour.* Long hours and continued application at complex and delicate machinery, with insufficient mental relaxation and rest, also insufficient out-door exercise, combined with vitiated atmosphere and poor food, constitute the prime factors in the etiology of these cases.

T. W. BISHOP.

INEBRIETY AS A DISEASE, ANALYTICALLY STUDIED.—Dr. R. M. Phelps, of Rochester, Minn., has an article in the *Medical News* of June 23, in which he discusses quite fully the above subject, and in which he does not fully agree with many other writers on the subject. His conclusions are as follows: 1. We should, for the sake of clearness, not mingle or use interchangeably the words inebriety and irresponsibility; but in the cases in which it can be clearly shown to exist, we should make inebriety mean the drinking, and irresponsibility the insanity so produced. 2. Disease should not be carelessly used to mean predisposition or neurosis; nor should it be used to mean a disease-symptom, unless so specified. But when unqualified it should designate a fairly well defined entity composed of a group of symptoms with known or presumed pathology and causation. 3. Inebriety (excessive drinking) can then be stated to be not a disease, but as tend-

ing to produce various diseased conditions. These conditions are quite general in character, but most notably seen in nerve-failure and brain-failure. 4. The predisposition varies in different persons and constitutes a temptation. 5. Irresponsibility is of varying grade, and the law does not necessarily follow these grades, but adjudges penalty, first by the consequence of the act, and second for the safety of society. 6. In our opinion, none of the early degress of inebriety as a rule produce sufficient effect to be named disease or irresponsibility. This being true, even if there be a growing mental impairment, we would call the mental state insanity only when it would be so called if induced by other causative conditions. Insanity, as a disease, is also subject to this same rule. The name is not applied to all mental changes, but only to those which have a considerable definition. Multitudes of mental impairments are not called insanity at all.

B. M. CAPLES.

INFLUENCE OF PSYCHOSES ON MENSTRUATION.--Dr. Schaefer formulates his observations in 268 cases as follows: 1. Besides the influence of normal menstruation and its anomalies caused by local or general diseases, on the development of a psychosis and the course of an existing one, menstruation, like other functions of the body, is dependant upon the various psychoses in a certain definite manner. 2. In the chronic intellectual psychoses (chronic paranoia, hereditary and secondary imbecility), menstruation occurs regularly if there are no abnormal emotional disturbances. The same is true of the acute intellectual and acute emotional psychoses so long as the emotional disturbances do not exceed a certain degree. 3. In the extreme exaltative, depressive and stuporose forms of acute intellectual psychosis, also the severest forms of mania, melancholia and primary stupor diseases, menstruation is absent. As a rule menstruation returns when improvement, a chronic course or secondary dementia follow the acute stage, and it then occurs regularly. 4. Absence of menstruation for a considerable time in the beginning as well as during the course of a chronic intellectual psychosis is almost unexceptionably associated with certain psychopathic conditions, which, on account of the prominence of certain pathological symptoms, stand forth as acute phases in contrast to the chronic insanity. If these temporary acute states disappear, and the psychosis again assumes a regular chronic character, the passing menstrual anomaly again turns into regular menstruation. (*Allgemeine Zeitschr. für Psychiatrie*, Vol. 50, No. 5, 1894.)

R W ROHRDANZ.,

DAILY VARIATIONS OF TEMPERATURE IN FUNCTIONAL PSYCHOSES.—Observations on the daily variation of temperature in psychoses have not been published very often. Dr. Th. Ziehen reports his observation in fifty-eight cases. 1. In passive melancholia the temperature is diminished, as a rule. The evening maximum is often not marked. The same is true of melancholia agitata, where there is much fear and anxiety, irregularly distributed maxima occur. 2. In mania, the temperature is pronouncedly higher, ($0.3-0.5^{\circ}$) during the acme of the disease in comparison with the prodromal and declining stages. 3. In acute paranoia the evening maximum is often absent. Irregularly distributed side maxima are frequent. Generally (not always) these occur during acute exacerbations of the motor and emotional excitement. The range of temperature variation is often considerably increased. There is no marked difference between the depressive, stuporose and exalted idealistic form. But the average temperature is generally lower in the former. The incoherent form is characterized by great daily variations. 4. In chronic hallucinatory paranoia similar irregularities occur occasionally as in the acute form, but they are not only less frequent but less pronounced. 5. In chronic simple paranoia, the temperature curve is normal. 6. In hysterical psychoses, the relatively lower evening maxima, the numerous side maxima and especially the great increase of the total excursion distance of temperature curve, are striking. 7. In stupidity the average temperature is sub-normal. The daily curve was not definitely determined. 8. An inversed type occasionally occurs in all psychoses. As a regular occurrence it is very rare. It is of no significance at present. It must be remembered that even if the evening temperature is lower than the morning, there is generally a maximum at noon which is higher than the morning temperature. 9. The abnormally low average temperature occurring in melancholia, stupidity and stuporose paranoia must be distinguished from the very abnormally low temperature occasionally found in paralytic dementia, acute paranoia when it begins with incoherence, and in some forms of hereditary and acquired dementia. 10. Differences between the axillary temperature of both sides which exceed 0.2° are very seldom found in functional psychoses, excepting hysteria and complicated ophthalmic migraine, and when these can be excluded, they indicate an organic disease. (*Allgemeine Zeitschr. für Psychiatrie*, Vol. 50, No. 5, 1894.)

SIALORRHŒA IN THE INSANE.—Cristiani, (*Rivista Sper.*, page 149) concludes: 1. The saliva of the insane with sialorrhœa is of greater density than that of the same insane, or of sane persons, without ptyalism, is less fluid, more viscid, has a prevalent neutral reaction instead of alkaline, contains less quantity of sulpho-cyanide of potash, and moreover has a greater amyolytic potency. It presents also other features, but too inconstant and varied to be of importance, such as in the quantity of phosphates, etc. 2. It is a mixed saliva coming from all the salivary glands, parotid, submaxillary and sublingual, but with the characters of certain single glands in excess, thus often possessing the neutral reaction, turbidity, the greater amyolytic power of the parotid saliva, or the viscosity, the density, the scarceness or lack of the sulpho-cyanide of the submaxillary secretion; or again, the great viscosity, the same lack of sulpho-cyanide and the abundance of mucus of the sublingual product. 3. It has the characters of a sympathetic saliva, that is produced by the excitation of the sympathetic, turbid, viscid, abounding more in mucus, and with a greater density and amyolytic power than the so-called cerebral secretion, due to the excitation of the chorda tympani, which is limpid, transparent, watery, extremely fluid, almost without mucus, less dense and less amyolytic. 4. As regards the genesis of the sialorrhœa in the insane, it results from an irritation of the cerebral cortex, transmitted by the less usual route of the sympathetic, and not via the chorda tympani, and stimulating the secretory function, not of any one, but of all the salivary glands indiscriminately. 5. This predominance of the action of the sympathetic is supported also by the fact that the sulphate of atropine, which paralyzes the chorda tympani and stops the secretion under its control, while the contrary is the case with that induced by the sympathetic, has no effect on the ptyalism of the insane in diminishing the flow. Moreover, to still render more prominent the action of the sympathetic, in five of our cases were observed two other symptoms of vaso-motor origin, lacrymation and congestion of the face. 6. Finally, the amyolytic potency, so much superior in these lunatics to that in the same persons, or the non-insane, without ptyalism, also helps to explain the good digestion of the great quantity of bread, vegetables and legumes, foods rich in starchy matter, that these patients consume in their excessive voracity.

H. M. BANNISTER.

HYPOTHERMIA IN THE INSANE.—Bouchaud ("*Ann. Medico-Psych.*," March-April, 1894,) says that in insanity neither

lowering nor increase in temperature are constantly observable, but either may occur. Hypothermia in the insane, in his opinion, is a state of diffuse inhibition, provoked by depressive causes, acting on an exhausted nervous system.

J. G. KIERNAN.

PARÆSTHESIÆ IN A DEGENERATE.—Hirschberge (*"Revue Neurol.,"* No. 6, 1894,) reports a case tending to show that paræsthesiæ are readily produced in neurasthenic degenerates from reaction after therapeutic procedures.

J. G. KIERNAN.

VACUOLATION OF THE NUCLEI OF NERVE CELLS IN THE CORTEX IN THE INSANE.—Considerable difference of opinion exists among various writers as to the causes, significance and forms of insanity in which vacuolation occurs.

Dr. I. M. T. Skae, (*Brit. Med. Jour.*, May, '94,) gives his opinions derived from an examination of seventy-five brains. The process of vacuolation consists, evidently, first in a fatty degeneration of the nucleus, probably beginning in the nucleolus. The fatty matter is discharged into the cell protoplasm, and the nucleus retains its contour, but shrinks from within, leaving a vacuole. Bevan Lewis considered this process "peculiarly common to the smaller cells of the upper layers, in fact, often limited to the second layer." Dr. Whitwell states that it is most common in the deeper cells, while Dr. Skae has found it most common in the second and third layers, and the granule cells of the fourth layer in the sensory cortex are much less liable to it than any others, frequently escaping when vacuolation is common and advanced elsewhere. As to its etiology, Skae regards it as part of a general break-down of the cell, due to disease of the nucleus and consequent impairment of the nutritive influence exercised by the nucleus over the cell. The forms of insanity in which it occurs are so various and in all, except epilepsy, so inconstant that it is impossible to believe that the mental symptoms have any direct connection with it. Skae has found it in mania (acute, recurrent and chronic), melancholia, dementia, paralytic, alcoholic and senile insanities and general paralysis.

Some writers consider vacuolation due to toxic influences, but Skae found in many cases of cerebral vacuolation, no spinal vacuola. This, he thinks, argues against the toxic origin. Whether vacuolation is the cause or effect of disordered action is not quite determined. That it is the cause,

is rendered improbable by the fact that it is not constant in cases presenting as nearly as possible the same mental symptoms, by the various and antagonistic character of the symptoms in different cases: exaltation, depression, convulsions and unconsciousness. That it is the effect of disordered action alone is contraindicated by its occasional absence even in cases of great severity and long duration.

From his researches Skae concludes that the lesion is due to a disproportion between the blood supply and the activity of the vital processes going on in the cells, from increased actions in the cells and interference with circulation or probably from either of these alone if extreme.

T. W. BISHOP.

HALLUCINATIONS AND DOUBLE PERSONALITY IN SYSTEMATIZED INSANITY.—Séglas has (*Ann. Medico-Psych.*, July-Aug., 1894) recently studied certain cases where systematized persecutory delusional states took on, often in the onset, a different type from that usually presented. The most typical cases were those with a mystic religious tinge. The cases were characterized by a marked predominance of psycho-motor troubles such as motor hallucinations, diverse impulses, inhibition phenomena, great frequency of visual and rarity of auditory hallucinations, especially of word type, marked doubling of the personality, ideas of possession varying with the mystic character. These symptoms are said to characterize this form.

J. G. KIERNAN.

FIVE CASES OF PROLONGED AMNESIA.—Dr. R. M. Phelps, of Rochester, Minn., reports five cases that are of interest. The first had severe frontal headaches, causing dizziness, reeling and occasional falls. Patient would wander away, memory during these times being a complete blank. The second had attempted suicide, once by shooting himself and once by jumping in the river. Patient remembers nothing about jumping in the river. The third patient had misappropriated funds, proposed thoroughly impracticable and baseless business schemes, but denies utterly any remembrance of any or most of them. Case 4. During the past year patient had disposed of many thousands of dollars worth of property. No trace of proceeds after months of search could be found. Patient could not by ransacking his memory give any clue. Case 5. Had suicidal ideas, epileptiform spasms, mental derangement manifested by leaving while teaching

school, was not found for five months. Patient described himself as three times to have wandered away, only to find himself once in California, once in Europe; has numerous slight nervous attacks, headaches and nervousness preceding the wandering.—(*Northwestern Lancet*, June 15, 1894.)

B. M. CAPLES.

INSANITY FROM ALCOHOLISM.—In a recent special report of the Inspectors of Lunacy in Ireland, twenty out of twenty-one medical superintendents of district asylums agree that, in their experience, the most prevalent cause of insanity, after heredity, is alcoholism. The proportion of cases of lunacy due to the use of alcohol varied from 10 to 35 per cent. of the total admissions. The reports from two asylums pointedly refer to transformed inebriate transmission. The superintendent of one district asylum says that the offspring of inebriates are liable to many neurotic diseases, and of another that cases of epileptic mania have occurred among the children of inebriates.—(*Jour. Amer. Med. Ass'n.*, June 23, 1894.)

B. M. CAPLES.

PSYCHOSES TRAUMATIQUES.—D. E. Jacobsen: (Clinical study, *Nord. Med. Arkiv.*, B. III., No. 3, 1893.) The author calls attention to the relative frequency of serious head injuries in the etiology of mental maladies. Although not believing that there exists a psychosis traumatique *sui generis*, (looking entirely away from the psychical troubles of traumatic neuroses) which differentiates itself from all other psychoses by a special symptomatology and evolution, he is struck by the evident resemblance existing between many of these cases. This resemblance necessitates a division of the cases into two principal groups—*acute mental confusion* and *chronic dementia*. We encounter in the first group examples of almost all forms of mental confusion, hallucinatory, maniacal, stuporous, *fatuide*, etc. In the group in question, the maniacal cases seem to predominate among the psychoses called secondary to the traumatic origin, that is to say, cases which did not develop until some time after the trauma, while in those where the psychosis developed *primarily*, i. e., immediately after the injury, the "*forme fatuide*" was most frequent. The second group belongs also to the primary traumatic psychoses, and we find here dementia chronica in all forms, some without, some with motor paralysis existing simultaneously with cases of true general paresis. Syphilis existed almost always in

the last mentioned cases, and the value to be given this factor will always be doubtful. It is possible that a brain deteriorated through syphilis has predisposition. Having observed several cases of general paresis in cases with history of trauma the author was unable to cite a single case of purely traumatic origin alone. The results of the study outlined above are drawn from seventeen cases carefully observed in the general hospital at Copenhagen.

HALDOR SNEVE.

THE RELATION OF INFECTIOUS PROCESSES TO MENTAL DISEASE.—At the last meeting of the Congress of American Physicians and Surgeons, Dr. Charles K. Mills, of Philadelphia, read a paper on this subject. His conclusions are as follows: 1. Specific infection must be included among the causes of the mental symptoms and disease, which precede, accompany, or follow febrile and other infectious disorders, though other causes are sometimes active. 2. Much negative evidence can be adduced in favor of acute delirium or acute mania being due to toxæmia, such as is afforded by autopsies. 3. Analogies with nervous affections, which are known or believed to be of microbic origin, favor the view that insanities with similar or related phenomena and lesions are also microbic in origin. 4. The evidence afforded by careful bacteriological investigation of cases of acute insanity is thus far meager, and seems to show that various micro-organizations may induce the same or similar types of mental disease. 5. The mental disorders of pregnancy and the puerperal state are probably, in a considerable proportion of the cases, toxæmic, without reference primarily to childbirth; but it cannot be regarded as proved that a bacillus of either eclampsia or puerperal mania is the sole cause of these affections.—(*Med. Record*, June 9, 1894.)

R. W. ROHRDANZ.

THE INFECTIOUS ORIGIN OF ACUTE DELIRIUM.—Bianchi (XI. Internat. Congr., Rome, 1894, *Rivista Sperimentale* XXII., page 279,) concludes from his experimental and clinical investigations that there is a form of acute delirium occurring in hereditarily predisposed individuals, with rather uniform and characteristic symptoms, that is probably due to a specific infection of the blood and tissues. He has found in it a bacillus, several times longer than broad, with a tendency to form chains, mobile, coloring readily with aniline and with

Gram's method and not specific. Cultures in gelatine present in the liquid a flaky appearance, in agar it thrives, also in broth, which becomes somewhat turbid. Potato is for it a poor culture medium, milk does not remain coagulated. Its development occurs at temperatures between 16° and 40° centigr., but its greatest vigor is at those between 30° and 37°. All other so-called forms of acute delirium are only phases of aggravation of other primary psychopathic conditions (sensorial delirium, paresis), or are the expression of other intoxications, especially that of alcohol; or are the result of the said infection acting on a ground already infected by other mental diseases, as may be shown by further chemico-bacteriological investigation. Bianchi does not include in his true acute delirium the forms described by Schuele, which he holds are only grave episodes of other mental disorders. He claims that we may add to the categories of degenerative and traumatic psychoses one of infectious mental disease. In the discussion of Bianchi's paper, Hitzig remarked that in autopsies of a case of acute delirium he had found the same micro-organism referred to by Bianchi in the cardiac valves and in the brain.

H. M. BANNISTER.

TRANSFORMED INSANITY.—Ball, the French alienist, commenting on some psychiatric observations of mine published fourteen years ago, says: "Kiernan, the American alienist, claims to have observed delusions transmitted from one insane patient to another, which he denominates "*folie transformée*" (transformed insanity). Facts of this kind appear to me very strange, as they are contrary to all my experience. The insane coming under my observation manifest the utmost contempt for the delusions of their fellow-patients. Negative results of mine cannot nullify positive observations of others, hence I shall admit the existence of *folie transformée* as a variety of *folie à deux*. Cases, however, should be carefully scrutinized ere being placed in this category." Ball, in the 1890 edition of his work, however, reports a case which, in his judgment, should be placed in this category. Morandan de Monteyel ("*Ann. Medico-Psych.*," May, 1894.) in a recent analysis of the conditions underlying morbid mental contagion, remarks: To-day there is incontestable proof that insanity is capable of being communicated not only from the insane to the sane, but also from the insane to the insane, and that in the insane hospitals. Little known or little studied in France, this condition called elsewhere transformed or

duced insanity has been placed beyond dispute by cases observed by me and has been excellently discussed by Kiernan in America, Savage in England and Lehman in Germany." To these may be added Spitzka, Hurd, Burr, Lee, Clevenger, H. C. Brainerd, Hughes and others in the United States; Hack Tuke in England, Ball in France and others elsewhere.

J. G. KIERNAN.

INDUCED INSANITY.—(*Folie Communiquée.*) The following is a resume of Dr. Max Schönfeldt's article in the "*Archiv für Psychiatrie*, Vol. 26, No. 1, 1894: 1. The group of induced insanity includes those cases of mental disease which are caused by the implantation of the delusions of an insane individual on his surroundings, which were previously free from psychical disturbance. 2. The transmission of insanity is a relatively rare occurrence. 3. Paranoia is most frequently transmitted. 4. The primary and secondary insanities show approximately identical delusions. 5. Psychopathic disposition is the principal ætiological factor in the production of induced insanity. 6. Favorable conditions are blood relationship; psychical similarity; soul harmony and intimate association in seclusion; intellectual, moral or social supremacy of the one first affected; feeble psychical resistance of the second person. 7. The psychological phenomenon of implantation of insanity depends upon imitation prompted by egotism. 8. Healthy individuals with robust brains are not endangered by long continued intimate association with the insane.

R. W. ROHRDANZ.

A CASE OF INSANITY DUE TO MENSTRUAL FUNCTION—OÖPHORECTOMY—RECOVERY.—Reported by Dr. Eliot Gorton, who closes his paper with the following emphatic statements: I am not one of those who hold the sexual organs of woman responsible for the majority of her ills, and I deprecate as much as anyone the abuse of abdominal section. I maintain, however, that death is preferable to chronic insanity, and in view of the remarkable and brilliant successes achieved by the surgeon along this line, I am convinced that we have a field which has been but little explored, and one which offers bright inducements as regards the cure of insanity by the removal of the cause; and I need only add that the consensus of opinion of many well-known writers confirms the statement that the menstrual function is the cause of insanity in a large

number of cases. I am confident that I have seen several cases become hopelessly demented, or so deteriorated mentally as to be beyond medical or surgical aid, which, had ovariectomy been performed, would have recovered their reason. There are cases under observation to-day which I am positive would be greatly benefited, if not permanently restored mentally, by such an operation. Under these circumstances it seems to me that it ceases to be a question of whether or not oöphorectomy is justifiable. I maintain that it should be done in all those cases in which the menstrual epoch acts as the exciting cause of insanity, and the earlier the operation is performed the better for the patient and for posterity.—(*Med. Record*, Aug. 25, 1894.)

R. W. ROHRDANZ.

CHROMATIC SENSIBILITY IN DEMENTS.—L. Croustel, from (*Revue Internl. de Biblio Med.*, April 10, 1894) observation with Chibret's chromatoptometer concludes that there exists in dements (paretic, senile, coarse brain disease and terminal) a concentric narrowing of the visual field for colors, characterized by more or less complete loss of chromatic sensibility to violet. This is met with in 10% of dements of all kinds. It is usually accompanied with diminution of visual sharpness and light sensibility.

J. G. KIERNAN.

REFLEXES IN PARETIC DEMENTIA may be viewed, according to Marcel Briand (*Ann. Medico-Psych.*, May, 1894), from two standpoints: One as related to the periods of paretic dementia, and the other independent of these. From the first standpoint he concludes that pupillary irregularity and inequality are not sensibly more frequent at one time than another. There seems to be a parallelism between the alteration of ocular reflexes and those of tendon reflexes. This parallelism continues progressively until the third period, when it reaches its maximum of intensity. There is no appreciable difference between the first and second period from the standpoint of the state of the reflexes. At each period exaggeration is more marked in upper extremity reflexes than in lower. Abolition is the most frequent in the last. Exaggeration increases and abolition diminishes with the progress of the psychosis. The cutaneous, plantar, pharyngeal and palpebral reflexes are less affected with the degree of alteration, and no prognostic or diagnostic value is attachable to them.

In remissions, as a rule, alterations in the state of the reflexes persist. From the second standpoint it is concluded that in paretic dementia alterations of reflexes are the rule, non-alteration the exception. Pupillary inequality exists in four-fifths of the cases (a proportion probably below the truth). Pupillary irregularity is nearly as frequent as pupillary inequality. Myosis is twice as frequent as mydriasis, which is encountered in less than a third of the cases. Tendon reflexes are altered in 81 %; ocular reflexes in 72 %; cutaneous plantar reflexes in 62 %; pharyngeal reflexes in 48 %; and palpebral in 9 %. Tendon reflexes are exaggerated in 65 % and abolished in 16 %. The masseteric is frequently exaggerated and rarely abolished. Alterations of the ocular reflexes reveal themselves more often in the Argyll-Robertson pupil than by simultaneous abolition of the luminous and accommodative reflexes. Abolition of the last, with preservation of the first, has not been met with. The cutaneous plantar reflex is almost as often abolished as exaggerated. The pharyngeal reflex, altered in half the cases, is almost always abolished, rarely exaggerated. The palpebral reflex is almost always preserved. Its alteration is always exaggeration (reflex blepharospasm). These last reflexes are of very minute diagnostic or prognostic value.

J. G. KIERNAN,

PARETIC DEMENTIA IN WOMEN.—Dr. Idanow, of Moscow, concludes ("*Ann. Medico-Psych.*," May-June, 1894.) that paretic dementia in women is observed much more frequently than was formerly believed by alienists. One hundred and four thousand insane observed in eight European states showed that for each ten male paretics there were three females, making these comparisons exactly by admitted statistical procedures. If the paretic demented of both sexes alone be compared, the proportion is one female paretic to 3.8 males. In Austria, Germany, Great Britain, Denmark and Italy, the proportion was the same, one to three. In Belgium and France the proportion was four females to ten males. Certain facts tend to indicate that paretic dementia is increasing among women. The ætiology in the sexes is about the same. In the male, excesses predominate as ætiological factors; in the female, worry. In both sexes syphilis plays a role equally important and predominant. Syphilis is found in 68 % of the female paretics. The influence of the menopause claimed by certain alienists must be regarded as at present problematical. There is no sexual difference in

the evolution of parietic dementia. The "feminine form" of Régis seems at best superfluous. Syphilis in parietic dementia plays a double role. It acts as an immediate exciting and a remote predisposing cause. As in the male the viscera (spleen, liver, kidneys) are affected. In 87% the liver has been found affected by Tschige, Loubinoff and Klippell. At present it is not certain whether these changes precede or succeed the psychosis. Pseudo-parietic dementia is not clearly established by exact criteria. Antiluetic treatment should be employed in all cases.

J. G. KIERNAN.

REMARKS ON TWENTY-EIGHT CASES OF ADULT FEMALE GENERAL PARALYSIS.—Dr. F. A. Elkins (*The Lancet*, June 6, 1894,) presents the following data on cases admitted to Edinburgh Asylum:

Average age on admission.—About forty, youngest twenty-five, oldest fifty-one.

Kind of women affected by general paralysis.—Seven were known to have led immoral lives, several others had certainly had syphilis and twelve had been habitually alcoholic.

The type of the disease.—Twenty were found to have had mild attacks, eight being acute cases of considerable severity, the above showing the disease to be usually much milder in females.

Grandiose delusions.—Ten at some time had such.

Suicidal impulse.—Three had the suicidal propensity in the early stage of their illness.

Congestive attacks.—Fifteen had epileptiform or apoplectiform "congestive" attacks. in five, no recorded attacks.

Remissions.—Five had remissions of such decided character that they were discharged "recovered," but all returned within fifteen months from discharge. Three cases had partial remissions.

Duration of illness.—Three, 1 year; six, 2 years; eight, 3 years; two, 4 years; one, 5 years; one, 6 years; from the above, the disease seems quite as rapidly fatal in females as in males.

Post-mortem examinations.—Revealed usual pathological signs.

Etiology.—In Germany and Denmark it is commonly believed that syphilis is in most, if not all, cases, the cause; while most British alienists do not agree with this opinion. Strong arguments are advanced on both sides, making a definite conclusion as yet unjustifiable. This interesting article contains the following conclusions from the pen of Dr. Emil Hougberg:

1. Progressive paralysis, which attacks male much oftener than females, is a disorder especially of urban populations. 2. Syphilis has a very great part in etiology of progressive paralysis, while it does not play any important role in other psychoses. 3. The outbreak of P. P. usually between thirtieth and forty-fifth years, does not commonly occur until four or five years after syphilitic infection. 4. The symptoms of the specific disorder are commonly relatively mild. 5. In comparison with syphilis, hereditary predisposition, psychic causes, alcoholic excesses, sexual excesses and traumatism have only a subordinate part in producing paresis. 6. Of the different forms of the disorder, the maniacal type was most frequent, next demented, and lastly the melancholic. 7. The prognosis is unfavorable; the duration was under 4 years in 81.8 % and under 2 years in 43.4 %; remissions occur rarely. 8. In cases produced by syphilis, there are no symptoms characteristic of specific disease. 9. No improvement was observed from antisiphilic treatment; at autopsy no appearances of specially specific character were found.

T. W. BISHOP.

PARETIC DEMENTIA IN A GIRL OF FIFTEEN.—A. Westphal (*Charité-Annalen*, 1893.) reports the case of a girl whose sister, uncle and aunt were mentally abnormal and weak, and who had been infected with syphilis some years before. Three and one-half years before admission lancinating pains in limbs were complained of; in June, 1890, rapid decrease of vision occurred; in October, 1890, difficulty of walking and marked mental changes supervened. Admitted in November, 1890, the disease made rapid and typical progress, causing death in convulsive coma ten month later. Autopsy showed nothing varying from the usual picture of the disease.

The mother, who was healthy at the time of the daughter's admission to the hospital, was herself admitted with pronounced symptoms of paresis eighteen months later (*Neurolog. Centralbl.*, No. 7, 1894).

G. J. KAUMHEIMER.

PSYCHOPATHIA SEXUALIS AND ITS FORENSIC SIGNIFICANCE.—CHR. GEILL (*Ugeskrift for Læger*, R. 4, Bd. 17, p. 403 *et seq*) gives an extensive resumé of the subject, especially of the newer literature and its significance for criminal psychology. He emphasizes the need here, as anywhere, from the standpoint of the forensic physician, to determine

if insanity exists with the perversion or not. The sexual abnormality does not justify us in regarding the patient as insane, and consequently unaccountable. In so far as it must be considered wrong to punish sexually abnormal individuals, the laws should be altered so as to fit these cases.

HALDOR SNEVE.

THERAPEUTICS.

ETIOLOGY AND THERAPY OF PROGRESSIVE PARALYSIS (Tschisch, Internat. Congr. *Rivista Sperimentale*, XX, p. 286).—Conclusions:

1. The principal cause of progressive paralysis should be held to be constitutional syphilitic infection.

2. All other causes only cause paresis very exceptionally, although in these cases the presence or absence of specific infection or a hereditary syphilide can be settled only with difficulty.

3. Those cases are most liable to paresis who have a mild form of syphilis, and have undergone an incomplete mercurial treatment.

4. The significance of the accessory cause is but little known; alcoholic excess can be claimed as of great importance.

5. A neuropathic heredity is less frequent in paretics than in other mental diseases.

6. Nothing but a treatment with mercurial preparations in the early stages can cause a complete cure.

7. The relapses of the disorder appearing months after a complete cure can be explained by alcoholic and venereal excesses of the patient.

H. M. BANNISTER.

TREATMENT OF CHRONIC ALCOHOLISM BY HYPNOTIC SUGGESTION. — Dr. G. E. Bushnell has experimented successfully with hypnotic suggestion in the treatment of chronic alcoholism, and reports some twenty-three cases treated by him. His results are as follows:

1. Remained abstinent till last heard from, 8.
2. Relapsed and abstinent after further treatment, hypnotic or specific, 3.
3. Relapsed after passing out of reach, 2.
4. Relapsed and sought no farther treatment, 3.

5. Relapsed and continued to drink, notwithstanding additional treatment, 3.

From three to six treatments generally sufficed to remove the cravings for alcoholic stimulants in those who abstain, while treatment is recommended once a day, if possible, for one week, after which should be given once a week, then once a month. Dr. Bushnell finds it easy to render whiskey repugnant to the senses, while it seems impossible to accomplish the same in the case of beer with any number of suggestions.

T. W. BISHOP.

EDITORIAL.

THE clinic of Dr. N. Senn, at Rush Medical College, is said to be the largest surgical clinic in the world, and it is certainly a mine of information to the students who attend it. Visits to these clinics have given an opportunity to see how much the modern teacher has improved upon the methods of an older generation. The immense amount of clinical material, under the carefully selective principles of Dr. Senn, is made to illustrate in a systematic and orderly way, not only the rare forms of disease, but every possible variety of the more common forms. Students not only see typical cases, but what is more important, they see and study cases that are not typical; those cases that are rarely described in text books but which the physician, especially the beginner, finds are discouragingly common in practice. At these clinics students are drilled in eliciting histories, in making diagnoses, in demonstrating doubtful conditions, such as tuberculosis, by inoculation of animals. Dr. Senn advises students not only to take full notes of cases, but to sketch cases as they appear in the clinic, so that at the end of college life each one will have a volume on clinical surgery, heightened in value by the illustrations that add the interest of all object teaching.

An important feature of Senn's teaching is the combination of practical with scientific instruction. Pathological specimens are preserved and preparations made from them are subsequently presented under a score of microscopes and the morbid histology is studied and explained. In this way the student, in acquiring clinical knowledge, becomes a pathologist, and thus learns the art of searching for the origin of things by tracking morbid conditions to their source. This method adds to the usual educative results by creating an intellectual interest that has the element of fascination, and lessens in some degree the drudgery of study.

Formerly it was exceptional that physicians combined practical skill with thorough scientific knowledge; in fact, physicians were inclined to discredit the scientific practitioner as necessarily impractical. The day of the simply practical physician has, however, passed; the physician of the present day must be equipped with scientific knowledge and the scientific spirit if he would win his way to a deserved success. There is no one in the profession in America who has done more to establish this high standard than Dr. Senn, and his success as a teacher shows that his methods are justified by results.

While sitting in this clinic room recently, listening to the lucid exposition of surgical procedure, we were tempted to wish that we could drop twenty years from life and enjoy the advantages of the medical student of the present day. In the well equipped laboratories, the large museums and libraries, and the better methods of instruction, students are now specially fortunate in their opportunities, if they knew it.

The science of medicine has been revolutionized within this generation; a new continent of knowledge has been discovered and will be soon bequeathed to those who are now in college. May they prove worthy of their inheritance, and may they add as much to medical knowledge as this generation has added to that of the preceding.

TWO VERY important articles are noticed in this number of THE REVIEW which indicate progress in the pathology of nervous and mental disease. One is by Dr. Landon Carter Gray on Certain Morbid Conditions of the Urine in Functional Nervous Disease, and the other by Dr. C. K. Mills on Infection in Mental Disease. The toxic element in disease, especially in diseases of the nervous system, is becoming more and more apparent as careful investigations proceed, and the hopeful part of it is that toxic diseases are in a large measure amenable to therapeutics. Even if a small proportion of such cases are

found to be due to morbid conditions discoverable in the urinary secretion or to microbic poisoning, the discovery will be a boon to the sufferers from nervous and mental diseases. These two articles will doubtless be widely read, and we hope will lead to further investigation.

THE death of Dr. J. B. Andrews, of the Buffalo Insane Hospital, removes from among the living list of American alienists a man of large experience and high character. Dr. Andrews had been for many years an assistant at the Utica Asylum, and his management of the Buffalo Hospital since he became its superintendent has given it an enviable reputation as a public institution. The doctor was for many years practically the editor of the *Journal of Insanity*, and his work in this line was of a high order. He was not ambitious and the world has heard more of men who were his inferiors. He was an excellent executive officer, loved his work, and was satisfied to devote his talents to the interest of his patients.

WE notice much is being said in educational journals of moral instruction in schools, and we are pleased to observe that educators generally are opposed to any attempt to make children ethical philosophers. The proposition to teach ethics in school is on its face rather taking, for all are agreed that the moral instruction of the young takes precedence of all other matters in their training. It is important to distinguish between ethics, which is the science of right conduct, and morals, which is practice. We do not think ethics can be taught any earlier than in the final stages of education, and even then it ought to be taught only by those who realize the dangers of moral self-consciousness to the young.

The best place for the moral training of children is in the home, and the sort of training that will benefit them is not formal instruction, but the unconscious influence of the well-ordered lives of home associates. Born into a world of fairly good moral order, there is put upon children from the first,

unfelt, but constant pressure of moral influences, which, in many unseen but unmistakable ways, is at work throughout childhood producing moral habits.

The unconscious element in education is more important than the conscious, the mental habits children develop and the growth of which they are not at the time aware, are much more important than the knowledge acquired. They will forget the facts they acquire, but the habits will remain a permanent trait in character, and will serve for new and higher adjustments in solving life's varied problems. It is through this unconscious shaping of character that these moral habits are got that dominate the life and that are stronger than logic in their influence, and more lasting than any conscious moral drill that teachers, preachers or parents can supply.

The moral character of most men has been developed by personal contact with those who were capable of communicating to others *unconsciously* the better part of themselves. There is little in the moral conduct of the majority of people that they could account for to the ethical philosopher, and this because the habits upon which it is based were acquired unconsciously.

Thus again we see it is through the unconscious life that these and other higher acquisitions come, and it is the way they ought to come. It is always dangerous to early arouse the moral sense of children, to set them to thinking out the right and wrong of things, to fumbling their motives in a way to produce only moral indigestion and mental morbidness. Every alienist has met these victims of moral "over-training."

The way that nature has done is the way we should do, that is, trust to the spontaneities of our children, in which are included all the better tendencies of their natures; trust also to the silent but compelling influences of our own lives, for through these they will come into possession of the best that we can give them.

NOTES AND COMMENTS.

AN EPILEPTIC COLONY FOR ILLINOIS.—The Illinois State Medical Society last May passed a resolution endorsing a proposition for an epileptic colony for Illinois, on the Bielefeld plan, and a committee was appointed to bring the matter before the next legislature.

Dr. Jas. G. Kiernan has accepted the chair of Mental and Nervous Diseases in the Milwaukee Medical College and School of Dentistry.

AN ACCIDENT TO DR. WIGLESWORTH.—Dr. J. Wigglesworth, Superintendent of Rainhill Asylum, Prescott, Lancashire, England, was stabbed in the neck by a patient, who had obtained a sharpened staple; the internal carotid was severed, necessitating ligation of the common carotid artery. (*N. Y. Med. Record*).

Dr. Chas. Sedgwick Minot's work on Human Embryology has been translated into German by Dr. Sandor Kästner, of Leipzig, Prof. His writing the preface.

The well-known house of The F. A. Davis Co., of Philadelphia, will issue, in September, a work which will be most favorably received by the medical profession. It is entitled *Obstetric Surgery*, and is written by Drs. Egbert H. Grandin and George W. Jarman, gentlemen who, from their long connection with the largest and most widely known maternity hospital in the United States (The New York Maternity Hospital), are peculiarly fitted to expound the subject from the modern progressive stand-point of election.

There is no work in any language which deals with the surgical side of obstetrics so thoroughly as the present. The rules of obstetric asepsis and antisepsis are so described and simplified as to enable even the busy general practitioner to surround his patients with the same safeguards as are guaranteed in well-ordered hospitals. The subject of pelvimetry, without due regard to which modern obstetric surgery cannot exist, is most tersely and exhaustively treated of. The indications under which artificial abortion and the induction of premature labor properly fall are clearly exemplified. The limitations of the forceps and of version, and the beneficent results to be secured through timely resort to symphysiotomy and the Cæsarean section, are stated with the accuracy which

the marvelous progress of the past few years allows. The surgical aspects of the puerperal state are carefully described, and the concluding chapter deals with the surgical treatment of ectopic gestation.

The work having been prepared from a teaching stand-point, the terse text is elucidated by numerous photographic plates and wood-cuts, representing graphically various steps in operative technique. The student and the practitioner thus not alone may *read* what to do, but may also *see* how to act.

The work is not burdened with literature references. The authors have aimed to teach that which ample and prolonged experience has taught them is good. The net price of the volume will be \$2.50, and it will be printed in large, clear type, on excellent paper, and handsomely bound in extra cloth. The full-page plates, about 14 in number, will be printed on fine plate paper, in photogravure ink.

A companion volume, dealing in the same terse, practical manner with pregnancy, normal labor and the physiological and pathological puerperium, is in active preparation by the same authors.

BOOK REVIEWS.

A PRACTICAL MANUAL OF MENTAL MEDICINE, by Dr. E. Régis, Professor of Mental Diseases, Faculty of Medicine, Bordeaux, etc. With a preface by M. Benjamin Ball. A work crowned by the Faculty of Medicine of Paris. Chateauvillard Prize, 1886. Second Edition. Authorized Translation by H. M. Bannister, A. M., M. D. With Introduction by the Author. Utica, N. Y., Press of the American Journal of Insanity, 1894.

While innumerable foreign medical works of merit have been translated into English, the translator of this work points out that no translation of a modern French work on mental diseases has appeared. Dr. Bannister, the translator, who certainly needs no introduction to the readers of this journal, has well chosen the work worthy of an English publication. The first edition received, from the Paris Faculty of Medicine, the Chateauvillard Prize for 1886. Since then the author has thoroughly revised the second edition. The first part of the work is devoted to Mental Pathology, opening with a chapter on history, followed by sections on general topics, as etiology, prognosis, and an analysis of the mental and physical symptoms. Régis pays considerable attention

to classification, to which Chapter 3 is devoted. He reproduces and criticizes the classifications of six different authors and then gives his own, which comprises functional alienations, divided into generalized insanities (including mania, melancholia and insanity of double form) and partial insanities (systematized progressive insanity). The constitutional alienations are subdivided into degeneracies of evolution (disharmonies, neurasthenias, phrenasthenias and monstrosities) and degeneracies of involution (dementias). Further on (p. 329) he again gives a minute classification of the symptomatic insanities. Acute delirium is described under the head of hyperacute mania. Dr. Règis states that the use of the camisole may be required in states of excitement, and believes its careful use, by direction of the physician, to be harmless. Appended to the chapters on generalized insanities is one on their graphic representation by means of charts resembling the ordinary temperature chart, in which the normal state is the base line, mania being indicated by a curve above and melancholia by a curve below this line. This would seem to be a valuable aid to teachers. Progressive systematized insanity is the author's synonym for primary paranoia. Secondary paranoia is described under chronic mania and melancholia. The obsessions and fixed ideas are described under the head of neurasthenias, of which "the essential cause is heredity." Phrenasthenia is paranoia degenerativa. The author does not believe in a pure criminal psychosis, but rather, "that there is a class of criminals presenting clearly a more or less evident vice of organization. The complete study of the criminal appertains more to sociology than to psychiatry." The next ninety pages are given up to a description of the associated insanities. He describes, associated with syphilis, a form of "syphilitic pseudo-general paralysis." An alcoholic and a saturnine form of pseudo-general paralysis are also described, differing from true paretic dementia mainly by their longer duration and the possibility of recovery. He does not, however, deny the great influence which syphilitic infection has in the production of the latter disorder. On the contrary, he says that until very recently he, with Morel-Lavallée and Bélières, were almost alone in France in supporting the theory that syphilis is the most frequent and potent cause of general paralysis. He states that from 77 % to 90 % of all paretics have syphilis. General paralysis is subdivided into paralytic dementia and paralytic insanity. "It should be stated that general paralysis and tabes are diseases absolutely similar in origin and nature and that they have very close relations to each other." (p. 443). Epileptic insanity receives rather scant

treatment, (6 pages) but one page being devoted to larvated epilepsy. The second part of the work is devoted to the Applications of Mental Pathology to Practice. Chapter 1 treats of the practical diagnosis of mental alienation. This, and the succeeding one on the medical estimation of the necessity of sequestration, are among the most valuable in the book to the practitioner whose opportunities for dealing with the insane are limited. Especially in the first, many hints and "tricks of the trade" are given which can otherwise be acquired only by actual dealings with the insane, and which may save much time and possible mortification. The third chapter is devoted to treatment, followed by a therapeutic formulary. The opium treatment of melancholia is nowhere mentioned. Chapters dealing with various questions the medical adviser is often called upon to answer, as to heredity, marriage of the insane and their relatives and sexual relations, and with Medico-Legal Practice close the book. The psychological analysis of the mental symptoms is very thorough, while not at all abstruse. We predict for the book a wide popularity. The only improvement which could be suggested is that in future editions the book be printed as an octavo instead of a duodecimo, thereby reducing the thickness of the volume and rendering it less unwieldy.

ANNUAL OF THE UNIVERSAL MEDICAL SCIENCES. A YEARLY REPORT OF THE PROGRESS OF THE GENERAL SANITARY SCIENCES THROUGHOUT THE WORLD, edited by Charles E. Sajous, M.D., and seventy associate editors, assisted by over two hundred corresponding editors, collaborators and correspondents, and illustrated with chromo-lithographs, engravings and maps. Issue of 1894. Published by The F. A. Davis Co., Philadelphia, New York and Chicago. London, F. J. Rebman. Australian Agency, Melbourne, Victoria.

This issue surpasses in excellence any previous issue and shows untiring energy on the part of the author and his collaborators. While the large part is on general subjects, the volume on brain and nervous diseases is invaluable to the specialist. In the two previous issues the department on diseases of the brain is by Dr. Landon Carter Gray, in this issue by Drs. Gray, Pritchard and Shultz. New evidence is added in cerebral localization. The first and very interesting fact is of the removal by Goltz of the whole cerebrum as far as the corpora quadrigemina in the dog Mikron, the animal living eighteen months after operation. Many other facts are mentioned, and the whole chapter is exceptionally interesting.

H. Obersteiner, of Vienna, as in last year's issue, writes the department on spinal cord diseases, adding much to this portion of the work that is of value. Dr. Paul Sollier, of Paris, compiles the section on peripheral nervous diseases, muscular dystrophies, and general neuroses, and new data are added in a concise and comprehensive manner. The section on mental diseases, as heretofore, is by Dr. Rohé, of Catonsville, Md., and embraces the essence of all the latest current literature and research on this important subject. Dr. Norman Kerr, of London, has the section on inebriety, morphinism, and kindred diseases and adds new evidence to the prevailing belief that these are diseases and should be treated as such. The latest theories and treatments are given. Dr. Lewis Pilcher, of Brooklyn, and Dr. Samuel Lloyd, of New York, write and compile the section on surgery of the brain, spinal cord, and nerves, giving evidence of the advancement made in this department. The articles on general diseases are concise and comprehensive and are of inestimable value to any general practitioner as they give the essential and practical points; thus enabling him to keep up with the more recent scientific research without wasting time on elaborate articles. These five volumes constitute a valuable library, in reach of and should be owned by every practitioner.

B. M. CAPLES.

TEXT-BOOK OF HYGIENE: A COMPREHENSIVE TREATISE ON THE PRINCIPLES AND PRACTICE OF PREVENTIVE MEDICINE FROM AN AMERICAN STAND-POINT, by George H. Rohé, M. D., Professor of Therapeutics, Hygiene and Mental Diseases in the College of Physicians and Surgeons, Baltimore; Superintendent of the Maryland Hospital for the Insane; Member of the American Public Health Association; Foreign Associate of the Société Française d'Hygiène, etc. Third edition, thoroughly revised and largely re-written, with many illustrations and valuable tables. Royal Octavo, 553 pages. Cloth, \$3.00 net. Philadelphia: The F. A. Davis Co., Publishers, 1914 and 1916 Cherry Street.

To criticise a work upon which the profession has set the seal of its approval by demanding a third edition within a few years after its first edition, seems hardly necessary. Rohé's Hygiene has been adopted as a text-book in a number of colleges since its first appearance. This edition is increased in size, and in its revision the author has had the aid of such men as Surgeon-General Wyman, Dr. A. L. Gihon, and Professor Egbert, of Philadelphia, who have written on special subjects. With such collaborators, the author has produced

a work which is thoroughly up to date. The subject is such a large one that only the greatest clearness of language could compress it in the compass of this volume. To give an idea of its contents would be to rehearse all the subdivisions of preventive medicine, which are treated in the twenty-three chapters of this book. Prof. Egbert had added chapters on the analysis of air, food and water. The work is one which every physician should not only possess, but also study.

G. J. KAUMHEIMER.

PRACTICAL URANALYSIS AND URINARY DIAGNOSIS: A MANUAL FOR THE USE OF PHYSICIANS, SURGEONS AND STUDENTS. By Charles W. Purdy, M. D., Queen's University; Fellow of the Royal College of Physicians and Surgeons, Kingston; Professor of Urology and Urinary Diagnosis at the Chicago Post-Graduate Medical School. Author of "Bright's Disease and Allied Affections of the Kidneys;" also of "Diabetes, its Causes, Symptoms and Treatment." With numerous illustrations, including photo-engravings and colored plates. In one Crown Octavo volume, 360 pages, in extra cloth, \$2.50 net. Philadelphia: The F. A. Davis Co., publishers, 1914 and 1916 Cherry Street.

The average work on uranalysis is either a dry and scanty compilation or a large volume in which the essential facts are buried in a mass of unimportant detail. The volume before us has neither of these faults. The author has long been known as one of the leading authorities on urinary diseases in the West. He brings to this work the advantage of a large experience, and in advising the student in regard to tests, is able to state from his own knowledge which is best. The work is concise, without being sketchy and full, without being verbose. It is, indeed, one of the best works on the subject that has been published. Part I. is devoted to urinary analysis, urinary diagnosis being taken up in Part II. The book can be cordially recommended.

SYLLABUS OF LECTURES ON HUMAN EMBRYOLOGY. AN INTRODUCTION TO THE STUDY OF OBSTETRICS AND GYNÆCOLOGY. FOR MEDICAL STUDENTS AND PRACTITIONERS. WITH A GLOSSARY OF EMBRYOLOGICAL TERMS. By Walter Porter Manton, M. D., Professor of Clinical Gynæcology and Lecturer on Obstetrics in the Detroit College of Medicine, etc. Illustrated with numerous outline drawings. Philadelphia: The F. A. Davis Co., Publishers. London: F. J. Rebman, 1894.

In this small volume of 110 pages, the author has succeeded in presenting the salient points of his subject in a very attractive manner. The subject is one that is not especially popular with the medical student and anything which will develop and fix his interest in it is to be welcomed. While the individual chapters are, of course, but outlines, the book is a reasonably full presentation of our knowledge, the literary references embracing a large number of authorities. Directions for the preparation of embryos for microscopical study and a glossary are appended and greatly increase the usefulness of the work, which is interleaved for further notes.

G. J. KAUMHEIMER.

ON BRAIN AND NERVE EXHAUSTION. NEURASTHENIA, AND ON THE NERVOUS SEQUELÆ OF INFLUENZA, by Thomas Stretch Dowse, M. D., F. R. C. P. Ed., Late Physician Superintendent Central London Sick Asylum, etc. Fourth edition. London: Baillière, Tindall and Cox, 1894.

A presentation of the author's views on certain problems connected with neurasthenia. The author states that for many years he had discarded this term, but is "now very glad to have recourse to a term which is in every way most applicable to a number of nervous derangements." He believes that neurasthenia depends upon the blocking of nervous impulses, either by abnormally strong resistances or weak impulses, as well as a want of coöperation between various parts of the nervous centers. He also believes in a "neurasthenia of the nervous system," which for years remains a functional affection, and a "neurasthenia of the brain and nervous system," which leads to incurable organic disease. Certain constitutional states, usually hereditary, predispose to this disease. Besides this, overwork and worry are important factors. In this section he enters a timely and earnest protest against the "cramming" for examinations which is so popular at present in educational institutions, and which is responsible for many ruined nervous systems. Following the section on Treatment, is a section on the Exhaustion of Influenza, which occupies half the book. Here the author discusses the nature of influenza and the numerous nervous derangements following it, as they affect the various organs. He reaches the conclusion that the virus, whatever it is, is an intense poison to the nervous system. The work is well written and is certainly instructive.

G. J. KAUMHEIMER.

PAMPHLETS AND REPRINTS RECEIVED.

Vaginal Hysterectomy.—By A. McLaren, M. D., St. Paul, Minn.

The Pathology of Granular Conjunctivitis.—By H. V. Würdemann, M. D., Milwaukee, Wis.

Appendicitis.—By J. B. Murphy, M. D., Chicago, Ill.

Ovariectomy—Report of 39 Cases.—By A. McLaren, M. D., St. Paul, Minn.

The Relation of the Public to the Hospitals for the Insane and their Inmates.—By H. A. Tomlinson, M. D., St. Peter, Minn.

Closure of the Ear by Growths of Bone; Purulent Inflammation of the Middle Ear; Pain, Deafness, Etc.—By Robert Barclay, M. D., St. Louis, Mo.

Precepts of Aural Practice with Illustrative Cases.—By Robert Barclay, M. D., St. Louis, Mo.

Announcement of College of Physicians and Surgeons, Chicago.

Catalogue of the University of Texas for 1893-94.

Announcement of Detroit College of Medicine for 1894-95.

Two Cases of Supra-Vaginal Amputation by Baer's Method.—By Archibald McLaren, M. D., St. Paul.

Operative Surgery of the Gall Tracts.—By John B. Murphy, M. D., Chicago.

The Uric Acid Diathesis and its Treatment.—By J. F. Barbour, M. D., Louisville.

An Address Delivered at the Commencement Exercises of the Toledo Medical College.—By F. Byron Robinson, M. D., of Chicago.

Rupture of the Drum-Head by Blows Upon the Ear.—By Robert Barclay, M. D., St. Louis, Mo.

Announcement of Tennessee Medical College, Knoxville.

Announcement of Colorado School of Medicine, Boulder, Colo.

Forty-eighth Announcement, Starling Medical College, Columbus. O.

Fifty-second Annual Announcement, Rush Medical College, Chicago, Ill.

Announcement, Keokuk Medical College, 1894-95, Keokuk, Iowa.

Bulletin No. 40, Agricultural Experiment Station, University of Wisconsin. "Tuberculosis and the Tuberculin Test." Madison, Wis.

Announcement of Milwaukee Medical College and School of Dentistry.

"The Traumatic Origin of Erysipelas." "Intra-Tympanic Massage and Vapors in the Treatment of Chronic Aural Catarrh." "The Status of Skiascopy."—All by H. V. Würdemann, M. D., Milwaukee.

Medico-Legal Superstitions Concerning Criminal Inebriates.—By T. D. Crothers, M. D., Hartford, Conn.

Some Meteorological Data.—By Samuel Fisk, A. M., M. D., Denver, Colo.

The Modern and Humane Treatment of the Morphine Habit.—By J. B. Mattison, M. D., Brooklyn, N. Y.

Morphinism in Medical Men.—By J. B. Mattison, M. D., Brooklyn, N. Y.

NEW GERMAN BOOKS.

GOLDSCHIEDER. *Ueber den Schmerz in physiologischer u. klinischer Hinsicht.* Berlin. A. Hirschwald.

MYGIND, H. *Taubstummheit.* Berlin. Oscar Coblentz.

LEYDEN. *Die neuesten Untersuchungen ü. d. pathologische Anatomie u. Physiologie die Tabes dorsalis.* Berlin. A. Hirschwald.

HIRSCH, WILLIAM. *Genie u. Entartung.* Berlin. Oscar Coblentz.

SCHEUBE, B. *Die Beri-beri-Krankheit.* Jena, 1894.

NEISER, CL. *Die paralytischen Anfälle.* Stuttgart. F. Enke.

BECHTEREW, W. v. *Die Leitungsbahnen im Gehirn u. Rückenmark.* Leipzig. E. Besold.

KOERNER, OTTO. *Die otitischen Erkrankungen des Hirns, des Hirnhäute u. der Blutleiter.* Frankfurt. Joh. Alt.

OPPENHIM. *Lehrbuch der Nerven-Krankheiten.* Berlin. Boas und Hesse.

KRAEPELIN. *Ueber geistige Arbeit.* Jena. E. Fischer.

MOSSO, A. *Die Temperatur des Gehirns.* Leipzig. Veit u. Co.

LENHOSSEK, M. v. *Beiträge zur Histologie des Nervensystems u. der Sinnesorgane.* Wiesbaden. J. F. Bergmann.

MISCELLANEOUS NOTES.

GOLD MEDAL FOR SCHERING.—*La Rassegna Medica*, Bologna, June 15, 1894, reports editorially that the Exhibitor's Gold Medal has been awarded to the Chemische Fabrik Auf Aktien (vorm. E. Schering), of Berlin, for its scientifically interesting and valuable display of Schering's chemicals at the International Medical Congress in Rome. Special mention is made in the award of the valued new remedies included in the display, and introduced by the Schering Laboratory, such as Chloralamid, Phenocoll, Piperazin, etc. The editor, Dr. Dall'Olio, expresses his special satisfaction at this award, and emphasizes the therapeutic successes which he has achieved with these medicinal agents, as reported in the *Gazetta degli Ospitali*, *Rassegna Medica*, and other publications.

